

# Maternal and Child Health Services Title V Block Grant

## State Narrative for Puerto Rico

Application for 2013 Annual Report for 2011



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#### I. General Requirements

#### A. Letter of Transmittal

The Letter of Transmittal is to be provided as an attachment to this section.

An attachment is included in this section. IA - Letter of Transmittal

#### **B. Face Sheet**

The Face Sheet (Form SF424) is submitted when it is submitted electronically in HRSA EHB. No hard copy is sent.

#### C. Assurances and Certifications

By signing the SF424 Form and submitting the Title V Block Grant (BG) Application for 2010-2011, the Puerto Rico Department of Health (PRDOH) is committed to comply with all requirements established by OBRA'89 (PL 104-193, 1996). Funds allotted to PR will only be used for addressing the identified needs of women in their reproductive age, their infants, children and adolescents, including those with special needs and their families; and for the proper management and implementation of the action plan as described in the application. The allotted funds will be fairly distributed across all geographical areas for the different MCH population groups in accordance to the mandate (30-30-10).

Under any circumstance the Title V Block Grant funds will be used for construction or the purchase of land.

We will comply with all applicable requirements of other federal laws, executive orders, regulations and policies governing this program.

The undersigned agrees that the PRDOH will comply with the Public Health Service terms and conditions if the grant is awarded as a result of the submitted application.

Additionally, we certify that services will be rendered in a smoke-free environment, to provide a drug-free workplace in accordance with 45 CFR Part 76, and to comply with the prohibition of using federal funds to support any activity regarding lobbying or its appearance to.

/2012/ By signing the SF424 Form and submitting the Title V Block Grant Application for FY 2011-2012, the PRDOH reaffirms all the commitments stated above.//2012//

/2013/ By signing the SF424 Form and submitting the Title V Block Grant Application for FY 2012-2013, the PRDOH reaffirms all the commitments stated above.//2013//

An attachment is included in this section. IC - Assurances and Certifications

#### D. Table of Contents

This report follows the outline of the Table of Contents provided in the "GUIDANCE AND FORMS FOR THE TITLE V APPLICATION/ANNUAL REPORT," OMB NO: 0915-0172; published January 2012; expires January 31, 2015.

#### E. Public Input

Public input was obtained from a wide array of stakeholders including, but not limited to, women of child bearing age, adolescents, front line providers (home visiting nurses and community health workers), regional MCH staff, OB and other perinatal providers, neonatologists, pediatricians,

neonatal and maternal-fetal nurses, infant and maternal mortality committee members, and positive youth development model committee members, collaborators from other agencies and programs serving the MCH population, professional organizations, members of the Healthy Start Consortium and MCH Regional Boards, on a regular and ongoing basis. Other important public input is feedback from HVP participant committee, Youth from the Positive Youth Development Committee. An ad was published on May 26 and 28, 2010 in two newspapers of wide circulation in the Island, "El Nuevo Día", and "El Vocero", requesting input from the general public. A copy of the application and the Needs Assessment was placed in the seven MCH regional offices located at Aguadilla-Mayaguez, Arecibo, Bayamón, Caguas-Humacao, Fajardo, Ponce and San Juan. People interested in reviewing and submitting recommendations had the opportunity to do so during June 1-4, 2010. Written recommendations were due June 11th, 2010. A notice was also posted on the PRDOH web page on May 27, 2010.

One person reviewed the proposal but did not submit written recommendations.

Please see Methodology of the Needs Assessment, Section II for more details.

/2012/ An ad was published on May 25 and 27, 2011 in two newspapers of wide circulation in the Island, "El Nuevo Día", and "El Vocero", requesting input from the general public. A copy of the application was placed in the seven MCH regional offices located at Aguadilla-Mayaguez, Arecibo, Bayamón, Caguas-Humacao, Fajardo, Ponce and San Juan. People interested in reviewing and submitting recommendations had the opportunity to do so during June 1-6, 2011. Written recommendations were due June 10, 2011. A letter from a CSHCN mother was received in respond of the ad, but no actual review of the application grant was performed by her. A Social Worker for the Department of Family review the application and made suggestions.//2012//

/2013/ As in previous years, an ad was published during the 29th and 30th of May 2012, on two newspapers of wide circulation in the Island, "El Nuevo Día" and "El Vocero", requesting input from the general public. A copy of the application was available in the seven MCH regional offices during the 11th and the 12th of June 2012, and the written recommendations were due the 15th. Only one person visited the Ponce regional office and look at the document, but no recommendation was performed.

In view of the challenge to get public input on MCH related issues with the review of the application, the MCAH Division has used the ongoing Regional Boards and the Healthy Start Participants Committees suggestions during the year.//2013//

#### II. Needs Assessment

In application year 2013, Section IIC will be used to provide updates to the Needs Assessment if any updates occurred.

#### C. Needs Assessment Summary

/2013/The Puerto Rico Maternal, Child and Adolescent Health Program (MCAH) performed a comprehensive needs assessment of the MCAH populations and the capacity the system has in meeting their needs. The 2010 MCAH needs assessment used both quantitative and qualitative methodologies to gather and analyze data.

The PRSSDI Program performed several activities during this interim year as part of the ongoing MCAH needs assessment. The MCAH focused its efforts in monitoring progress toward addressing the established state priorities. This progress is described through the activities included in the SPMs and PMs. The findings and recommendations from the Needs Assessment were presented to MCAH stakeholders in several forums island-wide. Through the Needs Assessment, students, health professionals and other public service providers have gained and/or enhanced their knowledge about the health status of the MCAH population.

Furthermore, information was gathered from stakeholders to ascertain what changes, if any, have taken place in population needs or in the health system capacity. A culturally appropriate instrument developed in the 5-year needs assessment (Health Indicators Questionnaire) was used once more to gather information this year. The questionnaire identifies the population needs, prevention/intervention strategies, and agencies that provide services or could collaborate in addressing the needs. Members of the MCAH Regional Boards (RB) discussed and answered the instrument. Given that MCAH has one board in each of the seven Health Regions, MCAH have representation of stakeholders for all Puerto Rico.

According to RB members, improving the health of the WRA population should be one of the main concerns for MCAH. Some of the aspects mentioned are nutrition, availability of contraception methods, family planning, and continuous preventive health. Other topics include enhanced education, access to available services, mental health and cultural values. Social determinants related to health such as housing and employment were also identified as a concern for this population.

For pregnant women health education on breastfeeding, healthy weight gain during pregnancy, timely prenatal care and follow up, and availability of health related services were the most important aspects to be considered. The poor accessibility to services such as Obstetricians and services through government insurance plan are also important concerns for this special population.

Education to parents with infants is a high priority. The topics mentioned are: the importance to follow up preventive health services (EPSDT, vaccination), education to prevent infants' maltreatment and information of the availability of health related services for their infants. The MCAH provides education to populations and makes referrals to services on an on-going basis in each Health Region. Additionally, it will use communication means such as regional newsletters to disseminate vital information to the public.

Regarding the child population (1-14 years old) families are in dire need to have information and education on how to better raise children, anger management,

unintentional injuries and ways to avoid child abuse and maltreatment. Also dental caries affect greatly children as well as inadequate or unhealthy eating. They also stressed how necessary it is to educate parents about the importance of vaccination and preventive care.

The adolescents are also a major concern of RB members and one of the MCAH priorities. Several health adolescent issues were identified: nutrition, prevention of unhealthy lifestyles (alcohol, drug and tobacco use), violence, pregnancy and sexually transmitted diseases.

It must be noted that PR State priorities will remain unchanged this reporting year since the analysis of the information gathered reveals that they are in accordance with the needs of the population served by the MCAH program.

The MACH has established mechanisms and strategies throughout the years to address the issues identified by the stakeholders involved in the Regional Boards. In the first place, MCAH not only considers mothers but also WRA that are potential mothers, thereby it acknowledges pre-conceptive health as one of its priorities. Preconception care is the key, "creating a healthy baby first involves creating health in the parents". Thus, implementing good health practices before pregnancy will result in a safe pregnancy and a healthy baby. MCAH seeks to engage reproductive age women in health education and practices such as the importance of having good health, identification of risk factors, referrals to preventive services, as well as the use of folic acid vitamin. Indeed, MCAH has implemented aggressive strategies to increase the level of awareness, knowledge and consumption of folic acid among women.

Secondly, the decrease of premature births is one of the priorities established in 2010 because premature and low birth weight infants (disorders of prematurity and low birth weight) are in the first fifth causes of infant mortality on the island. MOD publication on 2011 with 2009 data showed that PR has the second higher percent of premature birth (17.7%) compared with other states and territories. Decreasing premature births will positively help decrease infant mortality in PR.

Thirdly, decreasing morbidity due to chronic conditions in the pediatric population, issues like immunizations, asthma and obesity are considered. Child abuse and neglect, mental health problems, and other behavioral problems are emerging issues for this population identified in the needs assessment. Therefore, this priority was established in the 2010 work plan. The promotion of adolescent healthy life styles includes actions aimed at reducing behavioral risk factors like use tobacco, alcohol and drugs, use contraceptive methods, interpersonal violence, suicides, and teen pregnancy.

Concerning the barriers related to system capacity, the same were identified in the 5 Year-Needs Assessment as in the yearly on-going assessment. The concerns related to system capacity brought up by RB members can be summarized in three areas: poor access to health related services, reduction of the number of health providers (specialists) and lack of information on available services. Hence, there have been no changes in the capacity the system has in meeting the population health needs.

Nevertheless, MCAH strives to improve the health and well-being of the populations served. To do so, it focus its efforts on health promotion and empowerment of populations through education and intervention, referrals to appropriate services, information share, and networks of collaborative relations with health and social services and programs within and outside the PRDOH.//2013//

#### III. State Overview

#### A. Overview

Geography and Political Context

Geography: Puerto Rico (PR) is a Commonwealth of the United States (US). It is the smallest of the Greater Antilles islands located in the Caribbean, about 1,000 miles southeast of Miami and 80 miles west of the US Virgin Islands. The Island is 100 miles long and 35 miles wide for an approximate area of 3,500 square miles. Puerto Rico has four main offshore islands -Vieques and Culebra to the east, and Mona and Desecheo to the West. Mona and Desecheo are deserted islands. The people of Vieques and Culebra have to travel to PR in small planes and boats in order to access secondary and tertiary health care as well as other human services.

The Dominican Republic, another of the Greater Antilles islands, is located west of Puerto Rico. Our proximity allows for mutual tourism and the sharing of economic and cultural resources. However, it also allows the entry of a significant number of legal and illegal immigrants affecting our health care systems as well as our health indicators.

Geographically, the Island is divided in 78 jurisdictions known as municipalities, each headed by a mayor who is elected every four years. The largest municipalities in Puerto Rico are San Juan, the capital; Bayamón, Carolina, Caguas, Arecibo, Mayaguez and Ponce.

The climate of the Island is a tropical maritime one, with an average high temperature of 86 degrees (F) and a low average temperature of 66.9 degrees (F). The Atlantic Ocean borders the North of PR and the Caribbean Sea borders the South Coast. Due to its location in the Caribbean, PR is highly vulnerable to the strike of hurricanes.

Political Context: Puerto Rico has been part of the United States since the end of the Spanish-American War (1898), and became a commonwealth in 1952. Politically, the Island resembles the 50 states. Every four years, the people of Puerto Rico elect a governor, 28 senators, and 51 House members to serve in the local government. Puerto Rico's voters also elect a nonvoting delegate to the US House of Representatives.

The United States maintains control over Puerto Rico's military defense, transportation, immigration, foreign trade, and many other areas of governance. Puerto Rican residents contribute to Social Security, serve in the US military, and can be called for military service. They do not pay federal income taxes and do not vote in US residential elections. Puerto Ricans are eligible to participate in federal government programs, but levels of assistance are typically lower than those provided for people living in the 50 states and the District of Columbia. As an example, in CY 2009 the Temporary Assistance for Needy Families (TANF) Program provided an average monthly payment of \$112.90 to families in Puerto Rico, which represents a 54% increase when compared to the same parameter in 2004-2005 (\$73.30). In 2009, the maximum monthly TANF payment for a family of three -the average size of TANF families -with no income ranged by state from \$185 to \$923.

There are several other federal programs in addition to TANF that provide support for low-income children and families in Puerto Rico, including nutritional assistance programs, Head Start, Job Corps, and school lunch programs. Residents of Puerto Rico are not eligible to receive Supplemental Security Income. Besides, since they do not pay federal income taxes, they are not allowed to receive the Earned Income Tax Credit, which is an important source of support for many low-income working families in the United States.

Economic Profile: Sixty years ago, Puerto Rico was mainly a rural island where most people made a living as farmers. Since becoming a commonwealth, Puerto Rico has developed closer economic ties with the United States, with increasing revenue from industry, agriculture, and tourism. While US median household income increased by 7% between 1989 and 1999

(adjusting for inflation), median household income during that period in Puerto Rico increased by 24%.

Nevertheless, income levels in Puerto Rico still are far behind those in the rest of the United States. Median household income in the Island in 2008 was \$18,401. To compare, although Mississippi's median household income (\$37,790) was the lowest among the 50 states, it was still twice as high as the median income in Puerto Rico. Maryland's median household income at \$70,545 was the highest of the 50 states and was almost four times higher than the median income in Puerto Rico. Hispanic/Latino households in Mississippi had a median household income of \$37,420, which is still more than three times the median income in Puerto Rico. Regarding the level of poverty, it declined from 58.9% in 1990 to 48.2% in 2000. The number of families under the poverty threshold decreased from 55.3% to 44.6%. In 2005, the level of poverty was 44.9% according to the Puerto Rico population estimate, while the number of families under the poverty threshold level was 41.1%. By 2008, the population estimate for the Island showed a level of poverty at 45.5%; the number of families under the poverty threshold remained the same as in 2005 (41.1%). However, we must keep in mind that the economic decline since 2000 and the resulting governmental measures to cope with it have placed an additional burden on the Island's constrained resources.

/2012/ 2009 data shows that income levels in PR continue far behind from the rest of the US states.//2012//

During the past five decades, the PR economic cycles paralleled those in the US economy. Yet, in 2005 local economists acknowledged that PR was in a recession due to the downward trend in the Island's economy. During the 2004-2008 period the executive and legislative branches (each one controlled by an opposing political party) of the government in PR attempted to reach a consensus agreement to solve the financial crisis that the Island was facing at the time. A fiscal and financial reform was proposed to cope with the large budget deficit, rising government costs and reduced profits. Government officials took drastic steps to reduce government costs that included cost-containing measures such as hiring restrictions, reorganization and consolidation of government agencies, and a radical reduction in funds available to maintain services at current levels. The situation became worse due to reductions in the amount of federal funds made available to PR. During this period over 100,000 direct and indirect jobs were lost. In 2008 our economy grew at a negative rate of -1.3%. According to experts, some of the factors that contributed to this recession are: the repeal of the 936 tax exemption status for investors doing business in PR, increasing fuel costs, increases in charges for basic utilities, the approval of a 7% local consumption tax. Also, another negative factor was a government strongly divided across party lines that interfered with the approval of an economic stimulus package by the PR Legislators.

In 2008, a new government was elected in the ballots, with the winner political party in control of both executive and legislative branches. To deal with the financial crisis in the Island, the government adopted extreme measures, the most impacting one being the enactment of Law No. 7 of March 2009 which mandates, among other measures, the reduction of governmental budget by elimination of staff in public agencies with transitory positions and permanent personnel with less than 5 years in the workplace. This represented a loss of about 16,970 jobs by November 6, 2009 and may constitute a probable overall loss of nearly 30,000 employees in the next 2 years. Reorganization and consolidation of government agencies has continued.

/2012/ The direct effects of Law 7 end on June 30, 2011. However, some human resources processes at the PRDOH (i.e. hiring, salary increases, and new contracts) are still limited as per Executive Orders that pre-date Law 7 and are aimed at controlling payroll costs across government agencies. Despite these limitations, the MCH Division will continue our efforts to recruit all personnel necessary for the effective and efficient operation of our programs in order to execute Title V activities.//2012//

Population

Puerto Rico constitutes one of the most densely populated areas of the world. Currently, the Island ranks 27 in population size when compared to all other states in the USA. According to the Census Bureau there were 3,808,610 people living in PR in 2000. In 2008, the Puerto Rico Community Survey reported 3,954,037 persons living in the Island, an increment of 3.8%. To this number we add a population density of 1,155 people per square mile, similar to the population density of New Jersey which is the most densely populated state (1,181 people per square mile). Over 90% of the population resides in the urban areas, reaching figures close to 9,000 per square mile.

/2012/ Total population decreased 4.2%. PR population density is in third place.//2012// /2013/ According to the Census Bureau the total population decreased from 2000 to 2010 by 2.2%. PR population density continues in third place when we compare with the rest of the states.//2013//

The Puerto Rican population is fairly homogenous. Among PRCS participants in 2008, 99% responded they considered themselves Hispanic and only 3% were foreign born.

#### General Trends

Puerto Rico has increased its population during each decade since the first US census was conducted in 1899, when there were nearly 1 million people living in the Island. Fifty years later (1950) the population had more than doubled, reaching 2.2 million. However, the population growth in the Island has slowed during the past 60 years, mainly due to increased migration from Puerto Rico to the US mainland and a decrease in fertility levels. From 1970 to 1980, the Island's population increased by 18%, followed by a 10% increase during the 1980s. An 8% increase during the 1990s brought the total population to 3.8 million. For 2000, the population was 3,808,610. By 2008, there were 3,954,037persons living in the Island (Figure III-1). This represents a 3.8% increase in the Island's population in eight years. In the United States during the 2000s there was 8% increase in the population. For 2008 the MCH population comprised 49% of the PR Population (1,937,412 of 3,954,037).

/2012/ Half of PR population continues to be composed of the MCH group.//2012//
/2013/ According to the PRCS 2010, 48% of the population in PR is composed by the MCH group.//2013//

The Puerto Rico population pyramid has a narrowing or contraction base, which reflects lower percentages of younger people. The percent of the population comprised of children 0-19 years old continues to decrease, from 32% in 1990 to 27.9% in 2008. Specifically, 28.5% (1,126,490) were women in their reproductive age (10-49 years old) and 20.5% (810,922) were children 0-19 years old in Puerto Rico. In 2000, about 27% of families with children in Puerto Rico were headed by a female householder. By 2008, we estimate that 34% of families with children in Puerto Rico were headed by a female householder with no husband present. This represents a 26% increase over the share of female-headed families with children in 2000 and is higher than the US average. In the United States, the share of female-headed families increased from 8.3% in 2000 to 12.5% in 2008.

/2012/ For 2009, one of three families with children under 18 years were headed by a female householder with no husband present.//2012//

/2013/ For PRCS 2010, one of three families with children under 18 years was headed by a female householder with no husband present.//2013//

At the turn of the 20th century the population under age 18 increased from less than 500,000 to 1.1 million in 1950. The child population increased slightly each decade during the 1950s, '60s, and '70s, but then had a downward trend from 1.2 million in 1980 to 1.1 million in 2000. Between 1990 and 2000, the number of children in Puerto Rico decreased by 5%, compared with a 14% increase in the United States. By 2008 the children's population in Puerto Rico had decreased to 982,276 (10%) when compared to 2000 (1,092,101). Therefore, the number of children living in Puerto Rico today is less than to the number of children living there in 1950. Despite the recent drop in the population under age 18, the number of children in Puerto Rico has more than doubled during the past century.

The proportion of children in the population has also decreased in recent decades. Between 1899 and 1960, the percent of children remained constant at about 50%. However, since then, a steady decline in the percentage of children has followed, from 43% of the population in 1970 to 28% in 2008 (Figure III-2). This last number is only slightly higher than the percentage of children in the United States (27.3%). The long-term drop in the proportion of children in Puerto Rico's population is a sign of an increase in the number of adults relative to the child population rather than a significant decrease in the number of children.

/2012/ In 2009, there is not a significant change in the number of children in PR.//2012// /2013/ According to the Census Bureau, the number of children in PR decreased about 11% between 2000 and 2010.//2013//

The drop in the proportion of people under age 18 has been determined by two main factors. First, there has been a long-term decline in fertility rates in Puerto Rico. In 1950, the fertility rate in Puerto Rico was 5.2 births per woman. By 1970, it had fallen to 3.2 births per woman, and by 2000 it had dropped to 1.9 births per woman. The 2000 fertility rate in Puerto Rico was slightly lower than the rate in the United States as a whole (2.1 births per woman) and was substantially lower than the rate for US women of Puerto Rico descent (2.6 births per woman). By 2006 the fertility rate had descended to 1.7 births per woman followed by 1.6 in 2008 (Birth Certificates). Increasing levels of female sterilization in the 1950s and 1960s have been associated with the drop in fertility rates in Puerto Rico during those decades. Also, a rising age at marriage and an increase in the use of oral contraceptives have contributed to the decline in recent years, but sterilization continues to play a key role. The estimated percentage of married women in Puerto Rico who have been sterilized (46%) is higher than that of any other country for which we have data.

Second, many young Puerto Ricans and their families have moved to the US mainland in search of greater job opportunities and higher wages. Between 1995 and 2000, more than 100,000 people age 5 and over moved from Puerto Rico to the US mainland. During the 1990 to 1999 period some 325,875 persons migrated. Between 2000 and 2007 about 359,000 persons moved to US mainland.

/2013/ For 2009, about 62,000 persons migrated to the USA. Meanwhile, about 32,000 came from USA. The net rate was -3.0.//2013//

The observed decline in the number of children in Puerto Rico may be the result of this relatively high level of emigration either through the relocation of parents with their children to the US mainland or of people of reproductive age, which may reduce the number of potential births that occur in the Island.

There are now close to four million Puerto Ricans living stateside (the so called Diaspora) with reports that this number exceeded the number of the population in Puerto Rico for the first time in 2003. Despite the new demographic trends, New York City continues to be the home of the largest Puerto Rican community in the United States with Central Florida having the second largest Puerto Rican community, but Puerto Ricans live in all 50 US states and territories, including large numbers in New York, Massachusetts, Connecticut, Illinois, Ohio, New Jersey, Florida, Pennsylvania, and Texas. Some of the strong presence of Puerto Ricans in Hawaii, Arizona, and California is due to previous generations of Puerto Ricans moving to those states in the early 20th century to fill positions as farm laborers. Today they are filling professional positions within the Federal Government, including, NASA, DOD, US Customs and within the private sector. Puerto Rico has become an important source of professionals in many engineering fields, medical profession and other top notch positions in America. The adverse side of this relocation of professionals to the US Mainland has caused a dramatic drain of highly educated professionals from the island of Puerto Rico.

#### Female-Headed Families

Family structure has important implications for children. Youngsters growing up in single-parent

families typically lack access to the economic or human resources available to children growing up in two-parent families. While local social and cultural norms may influence the situation for children living in single-parent families (for example, they may benefit from extended family support), children in the Island growing up in single-parent families face an economic disadvantage when compared to children growing up in families with both parents present in the household. In 2000, nearly 27% of families with children in Puerto Rico were headed by a female householder. In 2008, we estimate that this rate increased to 34%. As stated before, this represents a 26% increase over the share of female-headed families with children in 2000 and is higher than the US (27.3%).

In the United States, the number of single-parent families has risen dramatically over the past two decades, causing considerable concern among policymakers and the public. The percent increased from 22% in 1990 to 27% in 2000. This suggests that the increase in female-headed households in Puerto Rico followed a trend seen throughout the United States. /2012/ For 2009, the percent of female headed-families in PR continues to be 26% higher than in the US.//2012//

/2013/ The PRCS 2010 evidenced an increase in the percent of female headed-families in PR. This percent is 34% higher than in the percent of the USA.//2013//

By 2005, nearly 32.6% of married-couple families with children under 18 years old and 57.8% of female-headed families with children were living in poverty. In 2008, about 34.0% of married-couple families with children below 18 years of age were living in poverty, while 67.8% of female-headed families with children were living in poverty. As a comparison, in mainland United States, about 6.5% of married-couple families with children and 36.3% of female-headed families with children were living in poverty in 2008.

/2012/ Female-headed families with children living in poverty had an insignificant increase. However, is five times than married-couple families with children living in poverty.//2012///2013/ Female-headed families with children living in poverty in PR slightly increased to 39.6%. However, this percent of female-headed families is 4 times higher than USA (8.4%).//2013//

In Puerto Rico, it is culturally accepted for grandmothers to assume the care of their grandchildren when their mothers are unable to take care of their offspring. By 2008, nearly 14.6% of children in this age range in the Island were under the care of their grandmothers.

#### Povertv

More than half of the children in Puerto Rico (58%) in 1999 were living in families with incomes below the poverty line. The Island's child poverty rate was more than three times higher than the child poverty rate in the United States mainland (16%). American Samoa was then the only US state or territory with a higher child poverty rate (67%) than Puerto Rico.

However, during the 1990s, the poverty levels in Puerto Rico, although usually quite high, declined significantly as a probable result of the unprecedented economic growth in the United States. The number of children in Puerto Rico living in families with incomes below the poverty line has decreased from 626,521 in 1999 to 434,403 in 2008. /2012/ There was no significant change in children living in families below the poverty

/2012/ There was no significant change in children living in families below the poverty level.//2012//

The percentage of children living in poor families has also decreased, from 58% in 1999 to 56.4% in 2008. In the United States, the child poverty rate dropped from 18% to 16% during the 1990s but for the 2000s the percent began to increase registering 18.2% for 2008.

/2013/ In the last 5 years (2005-2010) the percent of children living below poverty increased approximately by 1 point, from 48.8% to 51%. The USA also registered an increase in this indicator, but the difference for USA was 18%, while PR was 51%.//2013//

The number of families living below the poverty line also declined, from 450,254 in 1999 to

393,315 (32.6%) in 2005 and 362,789 in 2008. However, the number of female-headed families living in poverty increased by 8.5%, from 159,205 in 1999 to 172,721 (58.6%) in 2008. /2012/ For 2009, the percent of female-headed families living in poverty continues to be similar to 2008.//2012//

/2013/ There is no significant change in the percent of female-headed families living in poverty for 2010. In the last 5 years this indicator fluctuated between 58% and 59%.//2013//

According to data provided by the Puerto Rico Community Survey (PRCS), children and their families living in Puerto Rico face economic difficulties. In 2006 Puerto Rico ranked #1 in the nation in percent of children under 18 years old below poverty level in the past 12 months (for whom poverty status is determined). Two years later (2008) the pattern continues. The rate for PR increased from 56.3% in 2006 to 56.4% in 2008. Both rates compared adversely with the national rate of 18.2% in 2008. The 2008 PRCS also reports 44.6% of children live in households that received public assistance in the past 12 months, such as cash public assistance income or Food Stamp benefits. In 2008, people living in poverty comprised 44.8% of the population. The median household income in the past 12 months was \$18,401 (in 2008 inflation adjusted dollars), a slight increase from its 2006 level of \$17,621. The median income in the United States was \$52,029 for the same year. The per capita income in 2007 was \$9,639, a slight increase from its level in 2006 (\$9,474). In 2008, about 41.3% of all families and 58.6% of families with a female householder with no husband present had incomes below the poverty level, a slight decrease when comparing the rates of these two parameters in 2006 (42% of all families and 60% of families with a female householder and no husband present).

/2012/ There was no significant change for 2009 data compared to 2008.//2012//

#### Education

In 1990, the Census Bureau disclosed an illiteracy rate close to 10%. Unfortunately, the Census Bureau did not collect this data in 2000 for comparison. Nevertheless, this proportion of analphabetism is unacceptable in Puerto Rico when we consider the high number of public and private schools available in the Island. According to the Department of Education and the General Council of Education, there were 1523 public and 655 private schools in 2006-2007. The total school enrollment in Puerto Rico was 1.1 million in 2007. Of this, 777,880 were students (from kindergarten to 12th grade). About 77.3% (601,429) enrolled in the public education system and 22.7% (176,451) in the private system. By 2004-2005, there were 609,742 (78%) students in the public system and 171,613 (22%) in the private system, a total of 781,355 students. As we observe, the overall number of students in the education system in PR has a decreasing trend during the last five years.

/2012/ School enrollment for 2009 was similar to 2008. However, there was a decrease in enrollment at the public system and an increase at the private system.//2012//

/2013/ The percent of enrollment at the public and private systems remain the same for 2010. However, there was a decrease in the number of total school enrollment.//2013//

In addition to the primary and secondary education system, over 55 institutions of higher education have been established in PR since 1980. Currently (2010), there are 117 institutions of this, 47 are accredited. These include four Schools of Medicine; the University of PR School of Medicine which includes the School of Public Health and three private Schools of Medicine located in Bayamon, Caguas and Ponce. A wide range of degrees of health professions are provided by these schools.

#### **High School Dropouts**

Puerto Rico has experienced a relatively rapid shift from small-scale agricultural production to an industrial and service-oriented economy during the past 70 years. This transformation has led to a growing demand for educated workers with high school, college, and postgraduate degrees. In Puerto Rico, as in the United States, a high school diploma is a critical prerequisite for many entry-level jobs as well as for higher education. Yet, many young adults in Puerto Rico do not graduate from high school. The 2008 Puerto Rico Community Survey reported that 11.9% of 16-19 year olds were high school dropouts (not enrolled in high school and not in the labor force), a

similar rate from the one reported in the 2005 survey (11%). The high school dropout rate in Puerto Rico was relatively high compared with most states, exceeded only by Arkansas (8.0%) and New Mexico (7.7%). In the United States as a whole, about 5.3% of 16-to-19-year-olds were high school dropouts in 2008.

/2012/ Dropouts' percent continues to be about 11%.//2012//

/2013/ According to the 2010 PRCS the percent of dropout increased by 1 point (12.2%) compared with 2009 data.//2013//

The PRCS reported that in 2008, about 67% of people 25 years and over had at least graduated from high school and 21% had a bachelor's degree or higher. Thirty-three percent of people 25 years and over were dropouts in 2008; they were not enrolled in school and had not graduated from high school. It is estimated that nearly 35% of children who begin the first grade will desert from school before they reach the 12th grade.

/2012/ There is no significant change in the population with a high school-diploma. However, a decline in dropouts was observed.//2012//

/2013/ In 2010, 69.5% of people 25 years and over had at least graduated from high school and 22.3% had a bachelor's degree or higher, compared with 2009 data there was no significant increase.//2013//

The total school enrollment in Puerto Rico was 1.1 million in 2006. Nursery school and kindergarten enrollment decreased slightly in 2008 (101,000) when compared to the previous year (114,000) as well as the elementary or high school enrollment (710,000 children in 2008 vs. 735,000 children in 2006). However, college or graduate school enrollment increased from 270,000 in 2005 to 293,000 in 2008.

However, even though the dropout rate in Puerto Rico remains relatively high, there has been considerable improvement in this measure since 2000, when 14% of 16-to-19-year-olds were not enrolled in school and not high school graduates. A 15% decrease has been observed when comparing the rate in 2008 (11.9%) with the rate in 2000. It is important to highlight that in the case of females, pregnancy is the most common cause for school dropout.

#### The Need for Child Care

For the purposes of this report, the need for child care is measured as the percentage of children under age 6 living in families where all of the parents in the household reported being in the labor force during the week before the survey. For children living in single-parent families, this means that the occupant parent was in the labor force; for children living in married-couple families, this means that both parents were in the labor force.

According to this definition, the need for child care is lower in Puerto Rico (57.3%) than it is in the United States (64.5%). However, it is not clear from these census data whether the need for child care is low because women are not entering the labor force or whether women are not motivated to seek work because there are so few child care options available to them. Besides, some women who are "not in the labor force" may be working in the informal sector, providing domestic services or involved in other work outside of the formal labor force. Puerto Rico has a relatively large informal or underground economy, consisting mainly of self-employed workers, especially women. This informal sector includes many domestic services (cooking, cleaning, and sewing) as well as more formal services, such as catering and child care services.

In 2000, 40% of children under age 6 in Puerto Rico lived in families where all of the resident parents were in the labor force, compared with 59% in the United States as a whole, and 69% in the US Virgin Islands. In 2008, 57.3% of children under age 6 lived in families where all resident parents were in the labor force, while United States as a whole had a 64.5% rate. The relatively low percentage of children in need of child care is associated with the low percentage of women who are in the labor force. In Puerto Rico, about one-third (34%) of women ages 16 and over were in the labor force in 2000, compared with 58% in the United States as a whole. In 2008, about 53.3% of women ages 20 to 64 years old were in the labor force, as compared with 73.5%

in the United States as a whole.

/2012/ The percent of children under age 6 in PR that lived in families where all of the resident parents were in labor force is about 6%. This percent however is lower than the reported in the US.//2012//

/2013/ About 60% in 2009 and 59% in 2010 of children under age 6 years in PR lived in families where all of the resident parents were in the labor force. These percents were lower than the reported in the USA (64% and 65%, respectively).//2013//

In Puerto Rico, it is common for grandparents to provide child care while parents are working, and in many households, grandparents are the primary caregivers for young children. For the 2000 Census, the US Census Bureau added a new question to measure the extent to which grandparents provided care to their grandchildren. In Puerto Rico, there were 133,881 grandparents who lived with their grandchildren in 2000, and about 53% reported that they were "responsible for most of the basic needs" of one or more of their co-resident grandchildren. In the United States, only 42% of grandparents who lived with their grandchildren reported being responsible for their care. Forty-four percent of grandparents were taking care of their grandchildren for 5 years or more while in the USA the rate was 38.5%. More than half the grandparents responsible for their grandchildren and living with them (58.3%) were below the poverty level as compared to the states' rate at 18.8%. Thirty-three percent of grandparents responsible of the care of their grandkids were 60 years old or younger, while in the United States this rate was 29.1% (2000 Census).

In 2005, there were 131,355 grandparents in Puerto Rico who lived with their grandchildren; about 50% reported being "responsible for most of the basic needs" of one or more of their grandchildren. In the United States, only 43% of grandparents who lived with their grandchildren reported being responsible for their care. (Reference: US Census Bureau, 2005 American Community Survey, Selected Social Characteristics in US and Puerto Rico). In 2008, 129,657 grandparents were living with their grandchildren under 18 years old and about 60,700 (46.8%) informed they were being responsible for their care. A 1.3% fall is observed in the number of grandparents who live with their grandchildren from 2005 to 2008. A slight decrease was observed when comparing the percent of grandparents responsible for most of the basic needs of one or more of their grandchildren in 2005 with the same rate in 2008.

/2012/ Although a reduction of grandparents living with their grandchildren is observed, there was no significant change for grandparents responsible for most of the basic needs of one or more of their grandchildren.//2012//

/2013/ During the last five years, a reduction of grandparents living with their grandchildren is observed; this reduction is also observed in the percent of grandparents responsible for their grandchildren.//2013//

The PRCS for 2008 disclosed that younger grandparents were more likely to be responsible for their grandchildren. Of the total of these grandparents, 60% were in the 30 to 59 year-old range; 40% were 60 years or older. The level of poverty is greater for younger grandparents (61.8%) than for those that are older (52.6%).

/2012/ All the percents decreased; however, young grandparents continue to take care of their grandchildren more frequently.//2012//

/2013/ While the percent of grandparents responsible of their grandchildren in the range of 30 to 59 years old decreased, old grandparents (60 years or more) responsible for their grandchildren increased. //2013//

Although a decrease is observed in the last years in the number of grandparents in Puerto Rico living with their grandchildren and those responsible for their care, the importance of extended family members, particularly grandparents, as caregivers in the Island is obvious.

#### Summary

There was an increase of 3.8% in the total population reported in 2008 as compared to 2000. In 2008, females constituted 52% of the population while 48% were males compared to 51.9%

females and 48.1% males in 2000. The segment of children and adolescents between 0-19 years of age represented 28% of the total population. The MCH population, comprised by children and adolescents (0-19 years) and women 20-49 years of age, was about 49% of the total population in the Island. On the other hand, the proportion of persons over 65 years of age reached 13.6% (540,005), while it was 11.2% (425,137) in 2000. The median age was 35.9 years compared to 32.1 years in 2000. The average family size was 3.9 persons, a slight increase from 2000 (3.1 persons). The population of female householders with no husband present was 34% compared to 21.3% in 2000. Among this group, 49% (144,743) of them had children less than 18 years of age under their custody compared with 131,854 in 2000.

/2012/ Total population decreased; however, there were no significant changes in MCH subgroups. Median age, average family size and the percent of female householder with no husband present remains the same.//2012//

/2013/ Total population decreased, mainly for children under five years old. The reduction was 24% between 2000 and 2010. Median age, average family size and the percent of female householder with no husband present remains very similar to 2009.//2013//

According to the PRCS, the per capita income increased from \$8,185 in 2000 to \$9,474 in 2006 and \$10,022 in 2008. The median household income in the past 12 months was in 2008. By 2008, PRCS reported a median household income of \$18,401 (in 2008 inflation adjusted dollars), a slight increase from its 2000 level of \$14,412.

/2012/ Per capita income and the median household income for 2009 are similar to the ones reported in 2008.//2012//

/2013/ In the last two years the per capita income increased \$1,000 approximately (from 9,811 to 10,762), but it's continues being lower than the per capita income in the USA (\$26.409).//2013//

In 2008, a total of 129,657 grandparents were living with their grandchildren under 18 years old and about 60,700 (46.8%) informed they were being responsible for their care.

Other indicators of the PR's economic profile are the unemployment rate, number of participants in the Nutritional Assistance and TANF programs, and the number of individuals holding the GIP. The 2008 PRCS reported 3,954,037 persons and 878,424 families residing in the Island.

The unemployment rate has shown an upward trend for the past decade in Puerto Rico. In February 2000, the rate reported was 10.5%. By 2008, it had risen to 15.8%. This represents a 50.5% increase. According to the PRCS, among those employed in 2008 were about 1,245,938 persons 16 years and older. The leading industries in Puerto Rico were Educational services, health care, and social assistance (23%), and Retail trade (13%). /2012/ The unemployment rate increased 3%.//2012//

/2013/ The unemployment rate remains the same 19% in 2010.//2013//

In May 2009, the labor force in PR was estimated at 1,335,000 persons, of which 1,143,000 were employed while 191,000 were unemployed. If one compares these figures to those in May 2008 (1,219,000), there has been a decrease of 76,000 in the number of persons employed. This reduction has been accompanied by an increase of 35,000 persons that have joined the unemployment ranks. This means that the annual changes brought about a reduction of 40,000 persons in the labor force.

Unemployment is even higher among adolescents and young adults. This may generate a fertile environment for criminal activities and other social problems.

In FY 2004-2005, the average number of beneficiaries participating of the Nutritional Assistance program on any given month was 1,047,267 persons and 457,618 families, which represented 25.7% and 36.3% of all individuals and families in PR as reported by the 2000 Census Bureau. By FY 2005-2006, the average number of beneficiaries increased to 1,062,967 persons and 478,774 families. For FY 2008-2009, the total participants of the Food Stamp Program were

1,175,470 persons and 607,213 families.

/2012/ The average number of beneficiaries participating of the Nutritional Assistance Program and the total participants of the Food Stamp Program increased 13% and 3%, respectively.//2012//

/2013/ The number of participants of Nutritional Assistance Program also increased this reporting year. For 2010, the average numbers of participants were 1.3 million persons and 484,807 families, respectively.//2013//

For 2008, the total participants of the Food Stamp Program were 392,710.

A total of 76,146 families and 153,427 individuals were enrolled in the TANF program during 1998-1999. By 2004-2005 this numbers had declined to an average of 56,680 and 85,110 persons per month. Among all families, 15,930 of them had children under 18 years old for a total of 30,977. The number of participant families enrolled in the TANF Program increased to an average of 78,245 in 2005-2006, while a decrease of 81,857 persons per month was observed. During FY 2009, the number of participant families declined to an average of 45,665 and 70,994 persons. These figures tell us that the number of participant families in the TANF program has decreased by 40% in a 9-year's period. It is unclear if families and individuals disconnected from the TANF program are self-sufficient or simply it is the result to be in compliance with administrative procedures required by federal mandates.

/2012/ An increase was observed in families and individuals participants of TANF.//2012// /2013/ For 2010 the numbers of families and individuals enrolled in the TANF Program increased by 7% and 5%, respectively.//2013//

These downward trends in the number of families and persons participants of the Food Stamp and TANF programs would be the results of the implementation of the PR Welfare Reform Act (PRWORA) and not necessarily it reflects an improvement of the socioeconomic status of the population.

Race and Ethnicity: The 2000 Census was the first census in Puerto Rico since 1950 to include questions about race or ethnicity. For people in Puerto Rico, as well as Hispanics/Latinos living in the United States, race is a variable concept. This is evident in a comparison of race responses between people living in Puerto Rico and Puerto Ricans living in the United States. Although the groups share the same heritage, they have very different ideas about racial identity. In the 2000 Census, nearly 81% of people in the Island identified themselves as white, while Puerto Ricans living in mainland United States reported almost equally that they were white (46%) or "some other race" (47%).

The 2000 Census revealed the following ethnic composition in PR: 95.1% Puerto Ricans, 0.5% Cubans, 0.3% Mexican and 2.8% other Hispanic or Latino. Only 0.2% was Asian, Native Hawaiian and other Pacific Islander. Interestingly, according to the Census, 84% of the population residing in the Island was White, 10.9% Black and 9.6% some other race. Among the PRCS participants in 2008, 99% reported being Hispanic and only 2.8% were foreign born. The major ethnic groups living in the Island were: Puerto Ricans (95.6%), Dominicans (1.8%) and Cubans (0.5%).

/2012/ There were no significant changes in the ethnic composition in PR.//2012//

As stated before, the most significant ethnic groups living in Puerto Rico are Dominicans and Cubans. Most Dominicans are concentrated in the metropolitan areas close to San Juan. A significant number of Dominicans are undocumented. In 1998, the US Immigration Agency reported 7,540 new lawful permanent resident aliens and approximately 37,700 illegal residents in the Island. Puerto Ricans, Dominicans and Cubans have a Hispanic background. Spanish is the official language of the Government of Puerto Rico, although a significant proportion of Puerto Ricans speak English moderately well.

Vital events 2008

Births: Figure III-3 depicts the demographic and vital events data registered in PR in 2008. The estimated population was 3,957,098. There were 45,664 births registered, 99.9% of which occurred in hospitals, while 31 (0.1%) were delivered at home and other places. The natality rate was 11.5/1,000 inhabitants. When compared 1990 to 2000, the crude natality rate has decreased 37.6%. On the other hand, the preliminary C/S rate reached 48.5%.

Marriages and Divorces: For 2008, the rate of marriages was 10.9/1,000 women aged 15 years and older and divorces occurred at a rate of 9.7/1,000 women aged 15 years and older.

General Mortality: A total of 28,287 deaths occurred in 2008, a rate of 7.1/1,000 inhabitants. The ten leading causes of death were: (1) Heart Diseases; (2) Cancer; (3) Diabetes; (4) Alzheimer; (5) Hypertension; (6) Pneumonia and Influenza; (7) Chronic Pulmonary Diseases; (8) Septicemia (9) All Accidents; and (10) Nephritis and Nephrosis.

Infant Mortality: Figure III-4 illustrates the descending tendency of the infant mortality rate (IMR) in PR from 1990 to 2000. During a ten-year period the IMR declined 26.1%. However, from 2000 to 2008 it has dropped 24.2%; from 9.9 to 7.5 per thousand live births.

/2012/ Total births, general mortality and infant mortality had a non significant decline.//2012//

#### /2013/ Vital Events 2010

Births: According to the 2010 Census the population in PR was 3,725,789. For that year, about 42,250 were born in Puerto Rico, 99.9% occurred in hospital, while 0.1% were delivered at home or other places. The natality rate declined from 15.6 to 11.3 representing 27.6% decrease between 2000 and 2010.

#### General Mortality:

In 2008, the PR Department of Health (PRDOH) published the 2005 Vital Statistics (VS) Report. In this publication, mortality rates of some of the main causes of death showed drastic changes.

As a result, the Directors Board from the PR Statistics Institute (PRSI) approved Resolution No. 2008-01 to analyze the discrepancies showed in 2005 VS report and make recommendations. These recommendations are aimed at promoting the quality of PR mortality statistics.

The analysis was made in collaboration with the PRDOH and NCHS, which showed that an interpretation error of the system of classification was responsible for the significant changes in the specifics rates of some causes of death (malignant tumours, septicemia, diabetes, pneumonia and influenza, hypertensive disorders and heart diseases). It also detected a percentage of deaths that were not previously reported because they were informed after the due date to be considered as part of the official statistics report.

To address this situation the Directors Board of the PRSI, adopted Resolution No. 2009-05, to approve changes in the methodology used for the official statistics from the PRDOH. PRDOH requested that PRSI implemented these changes using the Mortality Medical Data System (MMDS) developed by CDC and adopted by NCHS. This methodology helps with the process of codification and classification of causes of death reported in the death certificate from 2000 to 2008. PRDOH assumed responsibility in implementing such changes starting with the 2009 data.

Using the CDC methodology a total of 29,303 deaths occurred in 2010, a rate of 7.9/1,000 inhabitants. The ten leading causes of death were: (1) Cancer; (2) Heart Diseases; (3) Diabetes; (4) Alzheimer; (5) Cerebrovascular Diseases; (6) Chronic Lower Respiratory Diseases; (7) Nephritis and Nephrosis; (8) Unintentional injuries; (9) Homicides; and (10) Septicemia.

#### Infant Mortality:

Therefore, an analysis of the new databases (2000 to 2010) with the NCHS classification, reports that the first cause of infant mortality is congenital malformations, deformations and chromosomal abnormalities and not disorders related to short gestation and low birth weight as reported before. In addition, the mortality rates stratified by age in the MCH population changed because of the additional cases (1% per year) that were added after the due date was adjusted.

During a ten-year period (2000 to 2010) it has dropped 19.6%; from 10.2 to 8.2 per thousand live births.

Figure III-4 illustrates the descending tendency of the infant mortality rate (IMR) in PR from 1990 to 2000. //2013//

An attachment is included in this section. IIIA - Overview

#### B. Agency Capacity

Since the implementation of a HCR in PR in 1994, the health care delivery setting has continued developing. For that reason, it is important to understand the changes that have been taking place in the Health Care System (HCS) in the Island as a preamble to providing the framework of the MCH/CSHCN programs priorities and activities.

We will provide in this section a summarized explanation of the traditional PRHCS and the reasons behind its restructuring into a privatized managed care model of health services.

Originally, the HCS in PR was divided into two parallel systems, public and private sectors. The public sector addressed all health care needs for almost 60% of the population that was low-income or uninsured. Conversely, the private sector served 42% of the population who could pay out of pocket or through third party payers.

In the past, the PRDOH was the predominant provider of individual health services for low-income and uninsured populations. It operated through an extensive regionalized network of primary health care centers (level one), at least one in each municipality; areas' hospitals (level II); regional hospitals (level III); and a Supra-tertiary Center at the PR Medical Center. Nevertheless, the PRDOH had to place limitations on the range of services available and compliance with the schedule of preventive services for low-income and uninsured populations. Insufficient allocation of funds provoked a chronic limitation of trained health care providers and ancillary services such as laboratories, X-rays and pharmacy services. There were both limited allocation of funds from the Commonwealth income and as a result of the restrictions imposed to PR by the Medicaid funds as well as to other territories. Also, patients who could pay for their services did not come to our system, except those referred by their physicians due to a catastrophic illness.

As years passed, PR's Medicaid Program paid only for hospital-based services, including inpatient and outpatient care for unqualified and medically needy persons. Consequently, Title V funds were used as the first financier for ambulatory care services for women of childbearing age (family planning, prenatal and postpartum services), preventive services for children and specialized services for CSHCN.

As mentioned earlier, the traditional HCS had primary health care facilities at each municipality who served as the gateway into the HCS for the low-income and uninsured MCH population groups. However, these primary centers lacked personnel. Also, most primary providers for women of childbearing age, infants and children were general practice physicians who lacked training to address the needs of the MCH population at risk. Besides, the number of primary providers was insufficient to serve all the population at municipal level in need of services.

High-risk pregnant women and children were referred to Regional Hospitals for follow-up. Many times patients had to travel long distances from their residency to the regional hospitals for an appointment. This represented an obstacle when seeking health care. Another upset was that patients did not receive timely follow ups according to their conditions and needs as a result of the limited number of health care professionals at regional hospitals and the high number of referrals received at these hospital settings. Patients were also referred to regional hospitals for laboratory and X-ray services. Children with special conditions endured the same difficulties as their mothers.

On the contrary, those persons with private insurance or who could pay out of pocket for health services (42%) had a private health care system with access to primary providers, specialists, laboratories, X-rays services, pharmacies and in hospital services at their community level or at the municipality nearest to their residency.

In an effort to eliminate or reduce the disparities in the accessibility and quality of health care services provided to the low-income and uninsured population (+60%), an aggressive HCR was launched in PR as mandated by Law No. 72 of Sept 7, 1993. The driving principles of this HCR are justice and equity for the low income population in PR when addressing their health care needs. This initiative consists of three main components: (1) a Government Insurance Plan; (2) renting or selling its public health facilities; and (3) increasing its role in performing the core functions of public health (assessment, policy development and assurance).

The PRDOH was expected to improve its role in performing the core functions of public health following the recommendations of the State and Territorial Health Officials (ASTHO): assessment, policy development and assurance. Consequently, the PRDOH established the promotion and protection of health as its highest priority.

The GIP's three primary objectives are: (1) Universal coverage; (2) Freedom of choice; and (3) Expanded benefit package.

The privatizing component is administered by a nonprofit corporation called the PR Health Insurance Administration (ASES, Spanish acronym), created by PR Law 72 of 1993. This corporation is responsible for a number of critical administrative activities, which include:

\*Negotiating contracts: ASES is responsible for negotiating and awarding contracts to private insurers to provide services included in the ASES standard benefit package on either a fully- or partially-capitated basis through managed care systems.

\*Conducting quality assurance: ASES monitors managed care plans by requiring the monthly submission of service utilization data. Reimbursement of the health plans is conditioned to the submission of these reports. Besides, ASES is reinforcing its monitoring activities through contracts with a number of organizations; a Peer Review Organization (PRO) is assessing the quality of ambulatory care services. PRDOH monitors hospital service quality, and other groups supervise regional activities.

\*Facilitating enrollment: ASES is in charge of enrolling eligible persons into the new system and coordinating eligibility determination activities with PRDOH. Medicaid certification staff of the PRDOH located at primary care centers determine which clients are eligible for the program and forward this information to ASES. In turn, ASES provides contracted insurers with the names and addresses of eligible persons so that they can send them letters informing them of their eligibility and inviting them to enroll with a managed care provider in their community. Each enrollee receives a health insurance card that provides the participant access to health care services.

In February 1994, the Commonwealth of PR began the implementation of the HCR initiative. The privatizing process of the health service delivery was completed by June 2000. Responsibility for

providing personal health services to low-income and uninsured populations covered by the GIP was transferred from the PRDOH to the private sector. Currently, all care is delivered through a managed care service delivery model.

The second constituent of the privatizing process was the sale of the public health facilities. To accomplish this, the Government amended State Law 31, which expedites and facilitates the sale of government owned Diagnostic and Treatment Centers (DTCs) and hospitals. The facilities were sold to private for profit and nonprofit organizations. After the completion of the implementation of the GIP in July 2000, several laws and changes were established. These include, but are not limited to:

\*Law No. 194, August 2000. This law requires the establishment of an agency to advocate for the rights of patients holding the GIP.

\*Law No. 408 of 2000. The PRDOH reassumed the main responsibility for the provision and coordination of mental health services for the population enrolled in the GIP.

\*Mental health coverage. This is included through contracted third-party services (Carved-Out) where mental health services are based on a financial arrangement capitation. The benefits included in this cover are:

- 1) Psychiatric Hospitalization
- 2) Partial Hospitalization
- 3) Services for Substance Abuse
- 4) Psychology and psychiatric consults
- 5) Others

\*The PRDOH assumed the primary responsibility for immunization services after June 2002.

\*Increase the length of the contract between ASES and the Health Insurance Company to at least 3 years. In 2008, the health insurance companies providing services to the population covered by the GIP were MCS, Triple-C, Humana, COSVI, First Medical, and MAPFRE, among others. Each of the eight regions is served by a health insurance company and by one of the two companies providing mental health services in PR.

\*Fourteen Clinical Guidelines were established, including Perinatal Services, EPSDT, Guidelines for the management of pediatric patients with asthma, diabetes, and HIV screening and treatment of HIV positive pregnant women, among others. A committee was established in May 2009 to review current perinatal guidelines and expand them to become guidelines for women's health at all age stages, including preconception health.

\*The PRDOH handed over the provision of direct care services to the private sector through contracts with health insurers, while maintaining the non-delegable core functions of public health. The PRDOH also retained the administration of certain federal programs and special services such as the WIC program, Medicaid, services for persons with AIDS and the MCH program, among others.

\*Satisfaction with the GIP: In 2005, the past Governor created a Commission to evaluate the health system of PR. This Commission conducted a special study about people's satisfaction with health services. One of the objectives of this study was to identify the differences between private health insurances and the GIP participants in terms of the satisfaction level with the health services. In terms of overall satisfaction with the health services, 90% of the patients with private insurance plans were satisfied compared with 77.6% of patients with GIP. This represents a significant statistical difference (p<.05). The analysis by type of health plan satisfaction found that patients with private plans were satisfied with: (1) the quality of treatment, (2) the attention of the medical staff, (3) the explanations of the physician, (4) the sympathy and courtesy of the doctor,

(5) the sympathy and courtesy of nurses and other health care professional, and (6) the advice offered by their doctors. In contrast, patients with GIP reported they were satisfied with the friendliness and courtesy of the doctor. Finally, when they compare the satisfaction in all areas assessed, statistically they found that the proportion of patients with health services received with GIP was significantly less than the patients with private plans. The level of satisfaction is the result of several problems that MCH population with government health plan faces. The assessments of stakeholders consulted in the PRMCH needs assessment identified certain problems affecting MCH population groups that are related to patient-medical doctor relations. Other problems presented are: access limitation to health services because the primary providers restrict the number of GIP patients seen daily; number of the days in a week that the physicians work in that locality; the control of referrals to specialists by the primary provider, among others.

The third component of the HCR was the transformation of the PRDOH from a disease-oriented agency to one that encourages health promotion and protection programs and primary, secondary and tertiary prevention programs within the context of a comprehensive continuum of public health services. Health Insurance Companies follow the same pathway providing preventive and primary care services.

State Health Agency's Current Priorities or Initiatives: In addition to the GIP, which is mainly implemented by ASES, and as a result of the HCR, the PRDOH has modified its role and approaches in pursuing the optimal health of the population. The PRDOH has put emphasis on the core functions of public health that include needs assessment, policy development and assurance. Also, as mentioned before, it has reoriented its main role as a disease-focused agency to one of health promotion, disease prevention and health protection of the whole population.

Several initiatives and programs were implemented by the PRDOH to address the health needs of the whole population or to sectors of the population with special needs. These initiatives include, among others:

\*The Behavioral Risk Factors Survey, a national CDC-sponsored cross-sectional study carried out yearly, designed to identify health trends, lifestyles and behaviors among Puerto Ricans: Since 2008, this survey includes questions on child, adult, and work related asthma. During 2009, it carried out the Asthma Call-Back which includes an adult and child feedback form including questions on health care utilization, asthma management, environment, medications, and cost of asthma care, work-related asthma, co-morbid conditions, and complementary and alternative therapies. Information was included in the Asthma Surveillance System report in 2007. Besides, the BRFSS includes a Folic Acid module introduced in 2008.

\*The HIV Prevention Needs Assessment, an Island wide study of a large sample of high-risk populations. The purpose of the study is to identify the health needs of these groups. The results are used to design custom-made HIV/AIDS/STD primary and secondary prevention programs.

Among the programs that contribute to address specific MCH needs are:

\*Rape Victim Centers - Six Rape Victim Centers (one at Central level and 5 regional centers) offer psychological help to victims and assist them with medical, legal and social issues. They educate the public, PCPs, distribute rape kits to ERs and have a 24 hr hotline, including services to support domestic violence victims across the Island.

\*Oral Health Services: Under the HCR, oral health services are included in the benefit package. Patients are not required to obtain a referral to get oral health services. They can access oral health whenever they want and with their preferred dentist.

During CY 2009, there were 1,342 dentists providing services to GIP participants. However, they are not distributed evenly throughout the Island. About 37% were located in the Greater SJ

Metropolitan Area and only 14% provide services to Southwest and Southeastern Regions. We calculated that in the Southeastern Region of PR there were 124 eligible GIP children per dentist and that in the Southwest the rate was 117 children per dentist. This represents a barrier when requesting much needed services. As an example, a study conducted by the MCH Program to assess the oral health status of a representative sample of third grade students reported that 17% of them had sealants despite the fact 94% of them had dental insurance.

\*The Immunization Program - The PR Government established compliance with the Hepatitis B vaccination as a requirement for school admission, for those born from 1991 on, and those who are 13 years of age. Since 2000, all adolescents from 13 to 18 must be immunized against Hepatitis B. PR has achieved high immunization rate in children through 2 years of age. PR had been the nation's jurisdiction with the highest percent of immunized children for three consecutive years. However, as a result of the vaccine shortage occurred in the nation in 2002, a marked drop in the proportion of immunized children 24 months old was observed in the Island. Fortunately, results from a study carried out in 2005 to determine immunization coverage in PR revealed that this parameter had increased to 94.5%. In 2007 the result was 91.2%. Also, the vaccine schedule was modified in 2007 to recommend 3 new vaccines (rotavirus, meningococcal and HPV). In 2009, a new revision recommended catch up efforts aimed at guaranteeing 11-13 year olds receive a second Varicella dose. It also expanded the age range for MCV administration to include children between 11-18 years old, and included HPV administration for females in the 11-18 age group.

In 2010 preliminary reports of a new study to assess immunization coverage revealed 55% of 35 month olds had received a full schedule of age appropriate immunizations. This decrease in vaccine coverage is explained in part by the shortage of HIB Vaccines. Results of the 2006 CDC study became available in May 2010. It revealed 72% of 19-35 month-olds were up-to-date with their immunizations.

## /2013/ Immunization coverage study performed during 2012 showed that 84% of 35 month olds were up to date in their immunization (4 DTaP, 3 IPV, 1 MMR, 3 HiB and 3 Hep B).//2013//

\*PR Medicaid and SCHIP Program: The PR Medicaid and SCHIP plans were approved in June 1998, with an allocation of 9.8 millions. In 2008-2009 a total amount of 48.1 million were assigned to help to buy a GIP for children who are eligible for the SCHIP program.

/2012/ In 2009-10, a total of 124.8 million were assigned to buy a GIP for SCHIP eligible children.//2012//

### /2013/ In 2010-2011, a total of 100.1 million were assigned to buy a GIP for SCHIP eligible children.//2013//

\*The total population insured by the GIP was 1,446,671 in 2009. A total of 486,006 women of childbearing age (WCBA) and 425,069 children 1-19 years old are insured by this plan as compared to 453,249 WCBA and 392,517 1-19 years old children insured in CY 2008.

/2012/ In 2009-10, the total population insured by the GIP was 1,320,642. About 426,967 were WCBA and 504,674 were children 1-19 y/o.//2012//

### /2013/In 2010-2011, the total population insured by the GIP was 1,359,417. About 371,277 were WCBA and 487,240 were children 1-19 y/o.//2013//

\*As of Dec 2009, the network of health care providers available to serve the low income population through the GIP was the following: 339 OB/GYN's, 437 pediatricians, 171 family physicians, 189 internists, 1,078 GP's, and 1,342 dentists. Only the General Practitioners and Dentists had a slight increase (1.5% and 4.1% respectively) from 2004 (1,062 and 1,289,

respectively), whereas there was a decrease of the other primary specialists needed for the MCH population.

/2013/As of Dec 2011, the network of health care providers available to serve the low income population through the GIP was 229 OB/GYN's, 400 pediatricians, 157 family physicians, 161 internists, 1,050 GP's, and 1,076 dentists. There was a decrease of the primary specialists needed for the MCH population.//2013//

In view of the health framework described previously in this section and the Title V requirements, the MCH role was refocused to assure that the most vulnerable population is not adversely affected by the continuously evolving system. To act according to this need, two core programs are implemented across the Island. One is the HVP that serves pregnant women and children less than 2 years of age with multiple social and health risk factors through a case management care/coordination model. The other one is the Community Outreach program, whose CHWs' main responsibilities are to identify pregnant women and children disconnected from the HCS and to facilitate their enrollment into the GIP, coordinate interagency services and give follow-up to certain situations of the HVP's participants.

/2012/ This year, the MCH Division received funding through the ACA to implement an Evidenced Based Maternal, Infant and Early Childhood Home Visiting Program. This program will be implemented in Barranquitas and Orocovis, two rural communities located in the central mountainous region of the Island. They share similar characteristics, are served by the same organizations, and face similar access barriers when attempting to get services (particularly those related to health care) because of the long distances and lack of transportation. The implementation of the program will begin in Summer 2011.//2012//

The delegation of the provision of direct services to the private sector has allowed the MCH/CSHCN programs to dedicate more time and resources to the development and implementation of infrastructure building activities which include creating partnerships, monitoring and evaluation, empowering communities, promoting healthy behaviors, building capacity, and advocating for supporting policies. We want to point out the following infrastructure-building activities:

- -Healthy Start Consortium/MCH Advisory Board: Professionals from diverse disciplines and sectors and representatives of the MCH population comprise this group. The Advisory Board is an important piece in providing input regarding new priorities and strategies to address the needs of the MCH population. Their recommended strategies are considered and most are integrated in the action plan set to improve the health and well being of the MCH population including CSHCN.
- -Breastfeeding Promotion Committee: This committee consists of a wide a number of stakeholders engaged in promoting this important behavior among childbearing women in the Island as a means to enhance the growth and development of children, while benefiting mothers and the community as a whole.
- -Preconception Health Committee: Key professionals from several private and public agencies work together to devise strategies directed to increase awareness of the importance of providing an optimal preconception health for every woman of childbearing age and in turn assuring the best possible pregnancy outcomes. A pilot project to improve the interconceptional health of women with diabetes was developed to be implemented in the near future.
- -Fetal Infant Mortality Review: The FIMR allows a Review Team to examine de-identified comprehensive information of infants who died in order to identify system-related risk factors that can be addressed.
- -MCH Regional Boards: SSDI regional boards were strengthened with representatives of ECCS State Team to collaborate in addressing barriers and problems related to the health care system

at the regional level. Their input is included in the MCH needs assessment.

- -Early Childhood Comprehensive System: Establish collaboration with municipal administrations to implement Early Childhood Clearinghouses in their facilities. They also disseminate health prevention and promotion messages and information on available local services.
- -Asthma Coalition: The Asthma Coalition was incorporated as an organization comprised by public organizations, private entities, academia and parents. Its goal is to reduce morbidity and mortality rates due to asthma. It has developed the PR State Plan and the Surveillance System. The first Asthma Epidemiological Profile was updated, printed and distributed. An educational module with CME credits was prepared for distribution among health care providers in 2009 to provide training for physicians in NIH Guidelines in order to decrease asthma morbidity.
- -Title V Monitoring and Evaluation Section: This MCH section monitors all national and state performance measures, evaluates outcome measures and supports the MCH needs assessment process. Several ongoing activities carried out are the implementation of the SSDI action plan; a customized PRAMS of recently delivered women conducted every other year; a Maternal Mortality Surveillance System; the Integrated Index of MCH Status by Municipality; the Health Status Book developed by SSDI Program and special applied surveys intended to increase our knowledge on selected MCH issues.
- -Birth Defect Surveillance System: Currently this system monitors the prevalence of 7 categories of birth defects: central nervous system, orofacial, musculoskeletal, genitourinary, chromosome, cardiovascular and others. These categories represent a total of 44 birth defects, among them: NTD's, cleft lip/palate, gastroschisis, limb defects, omphalocele, talipes equinovarus, ambiguous genitalia, Trisomy 13, 18 and 21, albinism, congenital heart defects, and others.
- -Universal Newborn Hearing Screening Program (UNHSP): Its goal is to implement newborn hearing screening at all birthing institutions. The program has among its strategies an Advisory Community to help in the implementation process. Legislation has been passed to support the UNHS in PR. The percent of newborns screened for hearing loss increased to 98% in 2008. The program obtained a supplemental grant to improve its performance on objectives related to improving the percentage of babies referred for audiological evaluation that received the evaluation before age of 3 months and to improve the percentage of babies diagnosed with hearing loss that are referred to early intervention programs and receive amplification before age of 6 months. Progress related to these objectives has been affected due to limitations imposed by local Law #7 (2009) resulting in delays for contracting the service coordinator and the family advocate to follow up families of identified newborns.

/2012/The percent of newborns screened for hearing loss increased to 99.5% in 2010.//2012//

/2013/ The percent of newborns screened for hearing loss decreased to 98.8% in 2011. The UNHSP Service Coordinator was hired in Jan 2012; her main role is to increase the percentage of babies with Refer status that receive audiological evaluation before 3 mo of age, and amplification before 6 mo of age for babies identified with hearing loss.//2013//

- -Universal Newborn Metabolic Screening Program: This comprehensive program began in 1983. It screens, provides confirmatory testing, genetic counseling and treatment for infants with a confirmed diagnosis.
- -Emergency Medical Services System for Children, Program for the prevention of pediatric emergencies: This program was developed and implemented in the University Pediatric Hospital with the support of the MCH program. A Law was approved aimed at the sustainability of the program through the recurrent allocation of \$90,000 from state funds.
- -Maternal Mortality Review Committee: A multidisciplinary committee was established in 2005 to

evaluate pregnancy-related deaths identified by the maternal mortality surveillance system. The Committee meets to review summaries of information gathered from cases with undetermined cause of death to classify or discard them as maternal deaths. Their evaluations serve to make recommendations to improve the health care delivery system.

-Healthy Start Community Based Consumer Groups: Informal community based groups of participants in the HVP who meet to identify barriers to health care and health related problems and work toward eliminating them.

## /2013/Healthy Start Community Based Consumer Groups: 18 Participant's Committees were active during 2011. These groups are composed of HVP participants, relatives and community member.//2013//

The Perinatal Guidelines Review Committee: This multidisciplinary committee's goal is to adapt the perinatal guidelines to PR situation; with these adapted guidelines the evaluation subgroup will classify hospitals that provide perinatal services. Members of the Committee made recommendations following the results of a study performed in 2008 to classify hospitals according to the perinatal services they provide. Adjustments to the analysis followed and its conclusion is underway.

/2012/The study showed that 42% of the hospitals offer only basic perinatal services, 30% specialized services and 27% subspecialized services (mostly at the Metropolitan Health Region).//2012//

## /2013/The committee met during June 2012 to review the new guidelines. The Perinatal Services Classification study is underway for 37 birthing facilities (with>=100 births during 2008) around the Island.//2013//

-"Alianza de Niños y Jovenes Saludables, Activos y Bien Nutridos": This alliance is designed to provide the organizational structure needed to coordinate and integrate the efforts of the government agencies, representatives of the academia and other private entities in their task of reducing obesity prevalence among children living in PR. It consists of three workgroups: Investigation, Education and Public Policy.

#### /2013/The alliance is now called Pediatric Obesity Prevention Alliance.//2013//

-Association of Primary Health Care of Puerto Rico (APHCPR): This is a non-profit organization that represent corporations, organizations and professionals who provide or have interest in the provision of preventive and primary health services in PR that respond to the needs of the communities they serve. Founded in 1984, this entity supports mainly primary health centers in PR that receive federal funds from the section of Health Primary USA (BPHC). They serve, currently, more than 350,000 patients in 37 municipalities on the Island, approximately 10% of the total population of PR.

#### Children with Special Health Care Needs

The CSHCN program provides specialist, sub-specialist and health related services to eligible children with special health care needs through the seven regional Pediatrics Centers (PCs). Due to reductions in federal and state budget allocations, orthoses and earphones are not currently provided in PCs, and metabolic products are provided in a limited manner. The UPR School of Dentistry maintains a contract with the PRDOH for the provision of orthodontic services to children with cleft lip/palate and other craniofacial anomalies. There were 1,440 visits to this clinic during year 2009. The PRDOH also maintains a contract with the UPR School of Medicine for the provision of neurosurgical and orthopedic surgeries.

Sixteen (16) years after the implementation of the HCR in PR, CSHCN of families with the GIP

still struggle to obtain referrals for specialized services for their children from their primary physician. Data obtained from the PR Survey of CSHCN (2009) revealed that 66% of CSHCN needed specialist services during the last year and 13% did not receive them; the most frequent reasons for not receiving the service was that the health plan did not cover the service and the primary physician did not provide the referral. The number of children served by PCs decreased from 8,155 during FY 2007-2008 to 6,444 during FY 2008-2009, representing a decrease of 21%. Reasons for this decrease include: delayed payments to medical specialists by the PR Department of Treasury due to the governmental fiscal crisis and lack of state monies, resulting in the resignation of specialists in various PCs. This situation was referred to the Secretary of Health, Dr. Lorenzo Gonzalez and meetings are underway with ASES and the UPR School of Medicine in order to identify funding sources to continue the appropriate and timely provision of services to CSHCN and their families.

/2012/The number of CSHCN served at the RPC decreased in 37% from 2005 to 2009. The initial phase of the implementation of HCR in PR was completed in year 2000. During the following years referrals to RPC from IPA's gradually decreased due to capitation constrains.

During the period from 2005-2009 specialists and subspecialists cancelled their contracts due to delayed payments by DOH. Bills are rendered at CSHCN Central Office but payments go through Department of Treasury, which by that time was a lengthy process. During 2008-2009 Government underwent a severe fiscal crisis, which worsened the payment process. In addition, State funds were not available as Title V Program support for subspecialist contracts. At present, most of subspecialists are located in the Metropolitan Center.

In order to evaluate the capacity of PC to serve CSHCN, the MCH Division and CSHCN Section completed a feasibility study aimed to assess: the number of children who receive services at the PCs (by condition and by center), rates of family's satisfaction with these services, staff perception of PCs services, and the availability of specialty medical services in the 78 municipalities of PR. The results of the study were presented at a stakeholder meeting in June, and will be used to determine ways in which the PCs can improve services for the patients and families who need this specialized care.//2012//

/2013/The results of the PCs' Feasibility Study were presented in Aug 2011 at the MCHB Grant Review. The 98% of families were satisfied with services provided at PC including service coordination activities by nursing personnel. Results revealed that specialty medical services are not accessible in the communities, since more that 50% of subspecialists do not accept Mi Salud.//2013//

CSHCN Survey: The CSHCN Section developed the first PR Survey of CSHCN (ENNES-PR, Spanish acronym) implemented in 2009. This is an island wide representative cross-sectional household telephone study established with the goals to assess the prevalence of CSHCN less than 18 years old and to explore the extent to which this population have medical homes, adequate health insurance, and access to needed services. Other topics include functional difficulties, care coordination, families' satisfaction with care, and transition services. Interviews were conducted with 850 parents or guardians who know about the child's health. Data collection for the survey was completed on June 2009. The study is currently in the analysis phase by the CSHCN Section's Epidemiologist. Preliminary results were presented to the CSHCN Committee. A dissemination plan will be developed to share this information in different forums at the state and federal levels.

/2012/ Study data was analyzed and results were presented to the Title V Committee and stakeholders.//2012//

/2013/The PCs were not included in the preferred networks, so referral from primary provider is still needed for CSHCN to access such services. In April 2012 a meeting between ASES, Assistant Secretary of Family Health, MCH and CSHCN Directors took

### place to discuss services available for CSHCN in their communities and the possibility to include PCs in the preferred provider network.//2013//

-Autism: The PR Survey of CSHCN reported that approximately 5.9% of CSHCN less than 18 years of age have autism or autism spectrum disorders according to parents' responses. This represents an estimated autism prevalence of 0.98% in the children's general population less than 18 years in PR, similar to CDC reported prevalence of one out of one hundred (1/100). The law project for the autism public policy completed in December 2008 was amended and finally vetoed by the Governor during year 2009. In April 2010, the Secretary of Health submitted his recommendations to the Legislature. The main limitation of this project is the non-assignment of state funds to comply with the imposed responsibilities to agencies and municipalities, but mainly to the PRDOH. The Governor of PR recommended implementing a study to determine the prevalence of autism in the general population before his approval of the law. This study is in charge of the School of Public Health of the UPR Medical Sciences Campus.

/2012/ The School of Public Health is currently in the process of completing the prevalence study of autism in PR. Results of the study are expected in Summer, 2011. In Fall 2011, the PRDOH will inaugurate a new Autism Center in San Juan. The center will serve as a diagnosis and referral facility for children living in the metropolitan area. The facility will also serve as a research and community education center. Understanding the importance of comprehensive insurance coverage for children with autism, the Mi Salud program also inaugurated in May 2011 a special package that includes broad coverage for needed medical services and therapies, and facilitates patients' access to specialty care.//2012//

/2013/ The School of Public Health with the Institute on Developmental Disabilities (PR-UCEDD) finished the PR Autism Prevalence Study. Results of the study shows the prevalence of children with autism in PR is as high as 1/62 children. The study used the NSCH (2007) methodology. On April 2012 the PRDOH inaugurated a new Autism Regional Center in San Juan. PR-UCEDD is in charge of the Center services under contract. In coordination with the children pediatricians or family physicians the Center offers diagnosis, evaluation, short term intervention and service coordination for children 0-5 years old and their families. The Center is also a training center for interdisciplinary university trainees, service providers and families. The Center is committed also to serve as an autism research center. The GIP inaugurated in May 2011 a special package that includes broad coverage for needed medical services and therapies, and facilitates patients' access to specialty care.//2013//

As a final commentary, we want to emphasize that PR has a health care system that includes the three health decision-making components, which are:

- -Informal segment located at community level, with the participation of individuals, families and concerned groups organized to promote specific health issues.
- -Formal health care system comprised of network of health providers, organizations, public and private health institutions, and different levels of care that provide preventive and therapeutic services.
- -Intersectorial area consisting of other public, private and non-governmental entities that indirectly influence health.

Despite all of the above, this health care system has had major challenges in accomplishing its goal of improving the opportunities for optimal health of all the population groups. Reasons for this are its fragmentation and the lack of a well designed Health Management Information System (HMIS) so essential for the proper communication among all the parts included in the HCS. Not having this system makes it difficult for managers to administer their programs based on reliable and timely data that may be converted into useful information for choosing the most appropriate

interventions.

A transformation is currently in progress within the HCR in PR. Health care access is one of the current Governor's main priorities. As publicly announced by him in April 2010 during his message on current government financial matters, beginning in Sept 2010, ASES will be required to have an updated infrastructure to comply with the new GIP integrated health model. This new model is called Mi Salud (stands for Integrated Model of Health, in Spanish). The new model of health places a greater responsibility on insurers and seeks to improve access to medical services and extend it to more people. The GIP will include access to specialists without referrals inside the preferred network; will eliminate the primary provider prescription authorization; will integrate mental and physical health in one place; will offer extended time in the medical groups (IPAs); and will require quality measures for the services offered by insurance companies. Also, all medical groups are expected to offer primary services at least until nighttime. Another issue under the Governor's consideration is to modify the levels of income eligibility for middle class people to benefit of the GIP.

/2012/The implementation of the new Mi Salud program began Oct 1, 2010. Contracts for the plan's administration were awarded to two Managed Care Organizations (MCOs): Humana and Medical Card Systems (MCS). Despite initial delays in the contracting process with physicians and hospitals, Humana and MCS now have fully formed provider networks across all health regions. As of April, 2011, Mi Salud covers approximately 1.4 million beneficiaries, including adults and children.//2012//

/2013/On July 7, 2011, ASES terminated the contract with MCS and established a 90 day transition period. Triple-S replaced MCS and began providing services to about 850,000 beneficiaries of Mi Salud on Nov 1, 2011. ASES data for FY 2010-2011 showed that the total population insured by the GIP was 1,359,417 (about 371,277 WCBA and 487,240 children). See Appendix 6 for GIP coverage.//2013//

An attachment is included in this section. IIIB - Agency Capacity

#### C. Organizational Structure

The Puerto Rico Department of Health (PRDOH) is the umbrella agency assigned in Article IV, Section 6 of the Constitution of the Government of PR responsible for all matters related to public health, with the exception of maritime quarantine. The Secretary of Health is appointed by the Governor of Puerto Rico and confirmed by the Legislature.

The goals of the PRDOH are to:

- \* Increase years of productive healthy life of all residents in PR;
- \* Reduce health disparities among residents in the Island; and
- \* Achieve access to preventive health services for all.

The PRDOH establishes the vision, mission, goals, organizational structure, and core functions of its components under the umbrella of the agency through the Administrative Order #207, signed on March 20, 2006 by the Secretary of Health (Appendix 1, which substituted Administrative Order #179 of January 15, 2003). In 2008, the PR Office of Management and Budget endorsed and made official the organizational structure established by Administrative Order #207.

This reorganization took into consideration similarities between programs, program size, efficiency, centralized vs. decentralized services, interdependency of functions, and the current government fiscal and administrative reform. The reorganization is expected to facilitate collaborative efforts and integration of projects. This new organizational structure has three main structural levels:

Advisory entities responding directly to the Secretary of Health: Health Council

Regional Health Directors
Internal Audit Office
Legal Counsel Office
Communication and Public Affairs Office
Commissions for Suicide Prevention, Nutrition and Radiation Control
Pan American Health Organization Office

Other entities responding directly to the Secretary of Health:
Direct Service Health Care Facilities (ASSMCA, ASEM, Cardiovascular)
Emergency Response Corps
Research and Epidemiology Office
Medicaid Office
Health Insurance Administration (ASES)
Public Policy Office
Center for Bio-Security Preparedness and Emergency Response
Office for the Regulation and Certification of Medical Services Providers
WIC

Support Services Units: Provide administrative support:
Auxiliary Secretariat for Health System Planning and Development
Human Resources and Labor Relations Office
Technology and Information System Office
External Resources Office
Auxiliary Secretariat for Administrative Affairs
Fiscal Affairs Office

Operational Units: They provide health prevention, promotion and protection services at the central, regional and municipal level:

Auxiliary Secretariat for Prevention and Disease Control: changed to become the Auxiliary Secretariat of Family Health, Integrated Services and Health Promotion (ASFHISHP) Auxiliary Secretariat for Health Promotion: eliminated and integrated into the ASFHISHP Auxiliary Secretariat for Medical and Nursing Affairs

Auxiliary Secretariat for Health Care Facilities Regulation and Accreditation

Auxiliary Secretariat for Health Care Facilities Regulation and Accreditation Auxiliary Secretariat for Environmental Health and Public Health Laboratories

The highlights of the Administrative Order can be summarized as follows:

- -Creation of an Auxiliary Secretariat for Medical and Nursing Affairs whose main responsibility is dealing with direct patient care (hospitals and clinics).
- -Creation of the Research and Epidemiology Office and the Center for Bio-Security Preparedness and a Public Policy Office. Both respond directly to the Secretary of Health.
- -The Auxiliary Secretariat for Prevention and Disease Control: changed its name to Auxiliary Secretariat of Family Health, Integrated Services and Health Promotion (ASFHISHP) in 2009. To deal with the loss of human resources due to Law 7 of March 2009, and the need to continue providing essential services, fusion of secretariats took place internally. The Auxiliary Secretariat for Health Promotion was eliminated and its staff and programs have been included under the ASFHISHP umbrella.

The ASFHISHP is responsible for the development and implementation of strategies and activities geared toward the identification of risk factors contributing to poor health among all individuals. It is also in charge of the development and implementation of programs intended for the reduction or elimination of such risk factors and the prevention of diseases. Its approach is based on primary interventions at the community level and with special populations. The ASFHISHP is comprised of a number of divisions and programs which address a wide scope of

health needs of different population groups, among them the MCH population. The Habilitation Services Division, now known as the Children with Special Health Care Needs Section, was inserted as part of the Maternal, Child and Adolescent Health Division; both programs are included in this Secretariat, along with the Immunization Program, Center for Victims of Sexual Assault, Central Office for HIV and Sexually Transmitted Disease Affairs, and Mental Retardation Services Division (Appendix 2).

Before the implementation of the Health Care Reform (HCR) in 1993, PR's MCH program played many different roles in serving mothers and children, including providing direct services, administrating population-based programs and assuming responsibility for core public health functions.

As a result of the HCR implementation and following recommendations by a Region II TA in 1995 (Health Systems Research, Inc.), the MCH services were refocused. Title V resources were aimed at filling the gaps in direct services not covered by the GIP; developing and implementing support programs for at-risk mothers and children; developing population based programs; infrastructure building services, such as carrying out activities to improve the integration of the public and private systems of health care, needs assessment, applied research, development of surveillance systems, inter-agency coordination of related services, professional development, public education, etc.

Being these divisions and programs under the same leadership facilitates the collaboration, cooperation and coordination of services among the central, regional and local staff.

As stated previously, under this new organizational structure the Habilitation Services Division became part of the Maternal, Child and Adolescent Health Division and is currently known as the CSHCN Section (Appendix 3). Both divisions make up the PR Title V Program. The Maternal, Child and Adolescent Health Division is currently divided into three sections:

- -Perinatal, Child and Adolescent Services Section Included in this section are: Healthy Start Project, Comprehensive Adolescent Health Services Program, Birth Defects Surveillance System and the Folic Acid Campaign, Systems Development and Inter-agency Collaboration Projects: the Early Childhood Comprehensive System Project, the Asthma Prevention Program and the Asthma Surveillance System.
- -Children with Special Health Care Needs Services Section It includes services provided by the Children with Special Health Care Needs Program, the Early Intervention System of Services and the Universal Newborn Hearing Screening Program.
- -Evaluation, Monitoring, Research and Systems Development Section The State Systems Development Initiative is an essential part of this section.

The MCH Division and the CSHCN Section leaders work in collaboration to promote the development of systems of care for all women and children as well as the provision of direct supportive population-based and infrastructure building services. The main goal is to reduce maternal, infant and pediatric mortality in PR. Title V funds and other federal initiatives sustain the programs, projects and activities.

Since March 2008 the PRDOH External Resources Officer handles exclusively the administrative and fiscal matters related to federally funded projects. This Officer is responsible for managing issues regarding the NGAs and FSRs of all the projects and programs sponsored with federal funds. He also helps programs comply with all the rules, regulations and reports required by the federal government within the specified timeline.

A new classification and retribution plan was initiated by the agency in July 2007 to adjust the personnel classification and retribution scale to the role the PRDOH has assumed after the HCR

began. With this plan the PRDOH was expected to competitively hire and retain professionals in fields critically important to our infrastructure building activities for example, epidemiology, biostatistics, data entry, informatics and evaluation. The plan also improved the salary scales. However, Law No. 7 of March 3, 2009 was implemented as a result of the financial crisis taking place in the Island. This Law established a layoff plan in governmental agencies as well as the temporary suspension of some dispositions contained in laws, labor agreements, and compromises regarding salary raises and benefits, among others. As a result, nearly 17,000 employees have been laid off from public agencies and all issues related to salary rises, hiring of staff, and other fiscal matters are suspended at least until March 3, 2011. Unfortunately, the CSHCN Section Director received layoff notice due May 28th, 2010. An Acting Coordinator is in place to provide continuation of works within the Section.

Organizational changes are in progress within the PRDOH to compensate for the loss of work force and the need to continue providing the essential services to the population. Meetings have taken place between programs and a team in charge of the restructuring of the PRDOH to help them in their reform process. As needed, changes will happen within the MCH Program's organizational structure to make it more responsive to the needs of the population we serve.

/2012/ The External Resources Office was renamed as the Federal Affairs Office and reports directly to the Secretary of Health. The Secretary has also named a new Special Assistant for Federal Affairs that is responsible for managing the Federal Affairs Office and serving as a liaison between programs and PRDOH administrative offices (i.e. Human Resources, Finance Office, Contracts Office, etc.). The External Resources Officer responds to the new Special Assistant.

The reorganization of the PRDOH is still under development by a task force designated by the Secretary. To date, no formal restructuring of the PRDOH's organizational diagram has been announced. Any new organizational diagram would not impact the MCH Division's ability to comply with Title V requirements, as the reorganization would not change the location of the MCH Division within the ASFHISHP.

The CSHCN Section Director was reinstated on April 13, 2011.//2012//

/2013/ The announced reorganization of the PRDOH has not been presented neither approved by the Secretary. There are no changes in the MCAH Division.//2013// An attachment is included in this section. IIIC - Organizational Structure

#### D. Other MCH Capacity

MCH PROGRAM

**Direct Services:** 

We attempt to provide services needed by WCBA not covered by the GIP package, such as contraceptive methods and Rhogam immunization for Rh negative non-sensitized pregnant women in their 3rd trimester. However, budget reductions, rising family planning (FP) costs, legislated salary increase for nurses, among other issues reduced our ability to offer specialty services. As an alternative, we refer women to 330s services, Title X clinics or PROFAMILIA (a non-profit organization) when we lack the methods requested.

/2012/ The PRDOH has a Collaborative Agreement with PROFAMILIA, a non-profit private organization, in which they receive referrals of women in reproductive age, pregnant and on interconceptional period to provide sexual and reproductive health services, including contraceptive methods.//2012//

#### **Enabling Services:**

-Home Visiting (HV)/Healthy Start Program: A family-centered, community-based service provided by specially trained PH nurses to pregnant/pp women and children up to 2 years of age with medical/social risk factors. The HVNs conduct a complete medical, psychosocial and

environmental assessment; develop a care plan in accord with the family; coordinate services through referrals to the entities in the community; offer health education on a variety of topics; carry out formal risk assessment for smoking, alcohol, drug use and maternal depression; give breastfeeding counseling and promote an interconception period f/up of at least 24 months, among others. By June 2010, there were 76 HVNs in 65 of the 78 municipalities.

/2012// By Dec 2010, there were 64 HVNs in 65 municipalities.//2012//

/2013/ By June 2012, there are 51 HVN actively on duty on 48 municipalities and 7 out on different types of leave (not on duty). Seventeen HVN positions and two Nurse Supervisors has been requested for recruitment but not approved up to now.//2013//

-Perinatal Component: Eight perinatal nurses, located at selected hospitals, offer individual/group education on a range of topics; make referrals to HVNs and other services; collect perinatal data; and participate in surveys designed at the central level. They are trained in breastfeeding techniques, FP, contraceptive methods and risk assessment of mothers and infants.

/2012/ By June 2011, only four perinatal nurses remains and will resume their duties.//2012//

/2013/ By June 2012, four perinatal nurses resumed her duties and another is on license without pay in way to retire due to medical condition. Three positions has been requested for recruitment but not approved up to now.//2013//

-Community Outreach: By June 2010 there were 44 CHWs in 43 municipalities. They identify pregnant women and children cut off from the HCS, facilitate their enrollment into the GIP, coordinate interagency services, conduct prenatal courses, provide orientation on MCH topics at community level, distribute educational materials, participate in health fairs and data collection, and identify problems of access to health services.

The MCH Program has lost staff that provided enabling services. Several HVNs have retired. Law 7, 2009 enacted by the local government to cope with the Island's budget deficit caused a massive layoff of public employees and new hiring regulations, making it difficult to replace HVNs and other key personnel. Several CHWs have been laid off following this law. Due to staff loss and to continue providing the same level of MCH services, reorganization is in progress within the program. HVNs will be reassigned to cover other municipalities as needed. Perinatal nurses will reassume HVN functions to help cover municipalities that lack HVP assistance. The tasks carried out by perinatal nurses will be shared by other HVNs as needed.

#### /2013/ By June 2012, there are 39 CHWs in 36 municipalities.//2013//

#### Population-Based Services:

The MCH program continually aims at developing new population-based programs and increasing its involvement with those already available, among them a newborn metabolic/genetic screening program, immunization program, PNC outreach, toll-free information line, public education on MCH topics, distribution of educational materials, prenatal HIV counseling and testing, and voluntary treatment of HIV positive pregnant patients with antiretroviral drugs.

The Comprehensive Adolescent Health component integrates all activities intended to reduce adolescent risk factors: pregnancy, unintentional injuries, violence, alcohol and drug use, etc. It trains middle school students as peer health promoters (PHP) and organizes activities to assist them. It continues developing a culturally appropriate curriculum on Positive Youth Development and a train-the-trainers guide to promote its application in agencies that serve adolescents. So far, there are PHP in 38 schools across the Island. We also applied for new federal funding aimed at adolescent pregnancy prevention to deal with this issue.

At central level the adolescent area consists of a physician with administrative functions (under

contract), a program coordinator (a nurse with a Bachelor in Nursing Sciences), and a social worker. It also has 8 regional coordinators (social workers) supervised by the Regional MCH Directors.

To enhance our scope of services and respond better to the needs of the MCH population, the adolescent coordinators will become MCAH social workers as they were originally recruited for. At Central level the Associate Director position will become an Adolescent Health Consultant. A Health Educator will be integrated to the team.

/2012/ The Comprehensive Adolescent Health Director will return to her full functions as Director after having served as Health Consultant this year.//2012//

/2012/ In 2010, the MCH Division received two new grants through the Administration for Children and Families to implement Abstinence Education and Personal Responsibility Education Programs in PR using evidence based models. During the first year, it will be directed towards parents of 10-12 year olds in municipalities in the southeastern part of PR and will seek to improve parent's communication and discipline skills. The Personal Responsibility Program will use an evidence-based curriculum to work with youth aged 12-14 who live in high-need areas to develop the skills needed to make responsible decisions about their sexual activity.

The MCH Division was not awarded the grant Research and Demonstration Programs and Responsibility Education Program (Tier 2), that was aimed at adolescent pregnancy prevention.//2012//

#### Infrastructure Building Services:

Currently, the MCH program has among its staff a group of programmatic advisors on reproductive health, pediatrics, social work, health education and cultural anthropology.

The Title V Monitoring and Evaluation Section is at this level of service. It receives support from the SSDI project and consists of a Demographer (the SSDI and Section Coordinator), a Biostatistician in charge of the PRAMS-like surveillance, two epidemiologists (master level), one in charge of investigations on reproductive issues and the other on children's health; a Cultural Antropologist in charge of qualitative researches and an Evaluator responsible for developing a maternal deaths surveillance system, among other tasks. All this personnel are under contract.

-MCH Advisory Body (Healthy Start (HS) Consortium): About 50 representatives from public agencies, academia, community organizations, and consumers form this group. They provide input on the selection of MCH priority needs and how to address them, help coordinating services across public and non-governmental agencies and are resources for professional development.

/2012/ During CY 2010, 30 representatives participated actively on the Consortium activities.//2012//

- -MCH Regional Boards: Representatives from public and private agencies and consumers are included. They facilitate services coordination across agencies and programs and provide recommendations to deal with system problems that interfere with access to services. The ECCS Project is a member.
- -Maternal Mortality Review Committee: Members include a social worker, midwife, health educator, obstetrician, nurse, pediatrician and evaluator (the Committee Coordinator), among others. Regional MCH Directors and selected nurses collect information at regional level. The MCH Director (Obstetrics Consultant) visits hospitals to review the records of those cases with undetermined cause of death. The Committee meets to review summaries of information gathered from those cases to classify or discard them as maternal deaths. Their evaluations serve to make recommendations to improve the health care delivery system.

-Fetal Infant Mortality Review (FIMR) project: The Committee includes a wide array of concerned health stakeholders, including MCH and HS staff. It is one of HS Project's tasks. Several nurses at regional level collect the data for the review. The MCH Program Coordinator (a pediatrician), and the HS social worker prepare together the case summaries that are then reviewed by the Committee. A summary with recommendations was prepared recently on the findings of several reviewed cases.

-Preconception Health Promotion Committee: Its members include representatives from MCS HIC, WIC, MCH, and other PRDOH program staff, among others. One of its first tasks was to prepare a 4-module instrument to be used in a project aimed particularly at interconceptional women with diabetes. The instrument is finished and ready for implementation.

-ECCSP has a strategic plan aimed at pursuing the development of cross-service systems to support children 0-5 years to be healthy and ready to learn. A State Interagency Planning Committee supports the project.

-Addressing Asthma from a Public Health Perspective: The PR Asthma Project (PRAP) aims at preventing deaths due to asthma in PR through an array of interventions to be implemented based on asthma surveillance data and partners recommendations. The CDC supports this project.

-The BDSS, supported by CDC, currently tracks 44 birth defects. It is included in the Perinatal and Pediatrics Section of the MCH Division.

The MCH/CSHCN programs carry out other activities, such as the development of SOC, interagency coordination, TA and support of community programs, professional growth in the area of MCH, information dissemination to key stakeholders, policy development and assurance of care.

The MCH Director, and Obstetrician, was designated in May 2009. She has worked in the PRDOH since 1981 in various positions, as a primary health care provider in high risk prenatal care clinics, as Medical Director of one of these clinics, and as the MCH OB-GYN Consultant for 12 years (See Appendix 4).

/2012/The MCH Director returned to her position as MCH OB-GYN Consultant in September 2010. The Assistant Secretary of Family Health, Integrated Services and Health Promotion assumed responsibility over MCH Programs as MCH Acting Director.

The MCH Director who served during 2008-2009 was reinstated as MCH Director in May 18, 2011. The Director is an Obstetrician/Gynecologist who also holds a MPH. His professional career includes Director of OB/GYN services in a USARMY hospital, followed by private practice. Since 2003, he has worked with the PRDOH in different positions: Director of the MCH Program in the North Region, Director of the Immunization Program, Director of MCH at Central Level and finally through a special assignment as Chief of Gynecology Services at the Latin-American Center for Sexually Transmitted Diseases (CLETS) (See Appendix 4).//2012//

The MCH Program has 34 full time positions at Central level and 8 regional teams, each under a Regional MCH Director. In 2008, two regions were fused (Mayaguez-Aguadilla) under one Director. Currently, regional teams consist of a Director, a WCBA services coordinator, a pediatric services coordinator, an adolescent health coordinator, a health educator, a perinatal nurse, and administrative support staff. Reorganization is in progress to continue providing much needed services particularly in areas severely impacted by staff loss. Major changes taken into consideration at regional level are: a coordinator to cover WCBA and pediatric services, a MCAH social worker, and the reincorporation of the perinatal nurse as a HVN while all HVNs will share duties carried put previously by the perinatal nurse as needed.

/2012/ By June 2011, the working team of MCH at Central Level consist of 26 professionals, and the reorganization continues.//2012//

/2013/ The retirement of personnel, the freezing effect and restrictions imposed by the Law 7 have reduced the working team at Central Level to 22 professionals. //2013//

#### CSHCN PROGRAM

Direct services:

The CSHCN Program provides and coordinates direct services through seven Regional Pediatric Centers (RPC). As of June 2010, the number of employees at the RPC was 142. Of these positions, 103 are funded by Title V and 39 by state funds. These include direct service and administrative support positions. Contractual staff paid by Title V include: one plastic surgeon, one ophthalmologist, three orthopedic surgeons, seven audiologists, one pediatrician, two psychologists, three speech and language pathologists, one occupational therapist, two physical therapists, two social workers, two nutritionists, one medical director and one data entry,

/2012/ During FY 2010-2011, the total number of employees at the RPC whose salaries are paid with Title V funds was 132. Of these 132, 72 employees provide direct services. In addition, 32 contractual staff are paid by Title V funds, including 5 orthopedic surgeons, 1 ophthalmologist, 1 orthodontist, 7 audiologists, 2 pediatricians, 5 psychologists, 1 occupational therapist, 2 social workers, 1 data entry, 4 speech and language pathologists, 1 physical therapist, 1 nutritionist, and 1 medical director.//2012//

/2013/ During FY 2011-2012, the total number of employees at the regional Pediatrics Centers paid with Title V funds is 161; of these, 132 are regular positions and 29 are contracts. Thirty-two (32) additional employees are paid with State funds. Of the 161 Title V employees, 103 provide direct services (63.5%).

Direct services contractual staff paid by Title V funds include 29 professionals, those are: 5 orthopedic surgeons, 1 ophthalmologist, 1 orthodontist, 7 audiologists, 1 pediatrician, 1 medical director, 1 plastic surgeon, 4 psychologists, 2 social workers, 3 speech and language pathologist, 1 physical therapist, 1 speech therapist and 1 nutritionist.//2013//

#### **Enabling Services:**

The CSHCN Program has a parent-staff since June 2009 (part time contract of 60 hours/month) helping develop links with families, participating in decision making and planning, and developing activities for families with CSHCN.

/2012/ During this year, the CSHCN Program's parent employee worked to develop links and activities with families, and participated in decision making and planning.//2012//

#### Population-based services:

Two Title V funded audiologist positions and seven audiologists under contract provide support to the Universal Newborn Hearing Screening Program (UNHSP).

/2012/ Nine (9) Title V funded audiologist positions provide support to the UNHSP.//2012//

#### Infrastructure Building Services:

The CSHCN Program Central Office has 8 positions that include the CSHCN director/coordinator position and 7 administrative support positions. There are 3 contractual staff positions: an Epidemiologist, a Health Systems Evaluative Investigation Specialist and Information Systems Specialist. The Epidemiologist is in charge of designing and conducting CSHCN research studies and needs assessments. The Evaluative Investigation Specialist is in charge of developing evaluation instruments, collecting and analyzing qualitative data and coordinates with the CSHCN Committee for strategic planning. The Information System Specialist is in charge of providing

support at the central and regional levels and updating Information Systems.

/2012/ The CSHCN Program Central Office has a total of 10 positions paid with Title V funds: seven regular employees (CSHCN Director and six clerical and administrative support positions) and three contracts (an Family advocate, an Epidemiologist and an Evaluator).//2012//

/2013/The CSHCN Program at Central Office has 11 positions funded by TV: 7 regular positions that include the CSHCN Director and 6 administrative positions; and 4 contracts (Epidemiologist, Information system specialist, accounting assistant and family advocate).//2013//

An attachment is included in this section. IIID - Other MCH Capacity

## E. State Agency Coordination

The needs of the MCH population are numerous and multifaceted. Due to this, there is no public or private agency, program, or community based organization that can fulfill all the needs of the most vulnerable population consisting of WCBA, children and adolescents. Therefore, it is essential to establish appropriate coordination mechanisms among all concerned entities in order to reduce duplication and division of services and to be more efficient in the utilization of the limited resources available.

In PR, we have fairly satisfactory coordination mechanisms established among several public agencies and other sectors of the community at the state, regional and local levels. These coordination mechanisms are found at both formal and informal levels. The PRDOH has set up formal relationships with other state public agencies, local public health agencies, academic institutions, federally qualified health centers and tertiary health care facilities. All of these formal agreements improve the capacity of the MCH/CSHCN programs.

This formal coordination is the result of established laws and executive orders by the Governor, which mandates specific agencies and programs to coordinate collaboratively certain types of services for the MCH population. Memorandums of Understanding (MOU) are set up among agencies and programs, which enhance the coordination of services. Other formal mechanisms contributing to achieve this goal include interagency committees, task forces and coalitions. The participation of consumers is also required in several of the laws, executive and administrative orders and committees.

Following are some of the laws, executive orders, MOUs and committees that improve the provision of health services and coordination among all concerned entities, which serve the MCH population. The staffs of the MCH/CSHCN programs at central level are regular members of most of these agreements.

#### General:

\*Law No. 72, Sep 7, 1993: Ordered the establishment of a Health Care Reform which includes a GIP for all individuals under 200% of poverty level. ASES, created under this law, is responsible for negotiating and awarding contracts to private insurers to provide services included in ASES standard benefit packages. ASES is required an updated infrastructure to comply with the GIP's new integrated health model starting Sept 2010. This model includes, among other things, access to specialists without referrals inside the preferred network, the elimination of primary provider prescription authorization; integration of mental and physical health in one place; and quality measures for the services offered by insurance companies.

\*Law No. 194, Aug 2000: To establish the Patient's Rights and Responsibilities.

\*Law No. 408, Oct 2000: To establish the needs for prevention, treatment and rehabilitation in mental health, and to create the Bill of Rights of adults and minor patients.

/2012/\*Law No. 22, February 24, 2011: This law amends Law No. 22 of January 2000, known as the "Law for Transit and Vehicles in Puerto Rico", to forbid persons registered in the "Persons Convicted for Sexual Offense and Child Abuse Registry" to drive vehicles designated to transport schoolchildren or commercial vehicles that transport passengers.

\*Law No. 76, July 16, 2010: This law amends Law No. 227 of August 1999 known as "Law for the Suicide Prevention Public Health Policy Implementation" to require execution of a "Uniform Protocol for Suicide Prevention" in all government agencies, entities or organizations receiving funds from the Commonwealth of Puerto Rico. This law also strengthens the prevention and intervention efforts directed at managing persons at risk of suicide and dictates that the Commission for Public Health Policy for Suicide Prevention of the PRDOH provides assistance for its elaboration and implementation.//2012//

#### Women of Reproductive Age and Infants:

\*Law No. 84, 1987: This law mandates the PRDOH to create the Hereditary Diseases Program to detect, diagnose and treat children with Hereditary Diseases. It requires that every infant born alive in PR must be screened for PKU, hypothyroidism and sickle cell anemia. Currently, two other conditions are routinely screened: galactosemia and congenital adrenal hyperplasia. In addition, the Law requires the establishment of the Council for Hereditary Diseases of PR. The council is integrated by four (4) licensed physicians; one (1) representing the Secretary of Health; one (1) parent of an affected child; and one (1) member should represent programs of continued education for health professionals. Among its responsibilities, the council will recommend the type of conditions to be screened and the kind of diagnostic tests to be used by the PR Hereditary Diseases Program. This law is under revision by legislators in order to increase the number of conditions to be screened.

\*Law No. 27, Jul 1992: Allows health care professionals to provide prenatal care and postpartum services to youngsters without parental or guardian consent.

\*Law No. 70, Aug 1997: Orders the Secretary of Health to establish a committee responsible of developing studies and providing recommendations for the reduction of infant mortality. An interagency committee, comprised of nine members, public and private stakeholders including ASES, under the leadership of the MCH Director, was established to comply with the law. A Plan of Action was developed to integrate recommendations from the March of Dimes Preterm Task Force. The MCH Division is actively participating in this task force. A FIMR Committee is in place to review IM cases and to give more insight into this problem to reduce its occurrence.

\*Prematurity Taskforce: Sponsored by MOD. Members include representatives from AAP, ASES, Academia, Hospital Administrators, House of Representatives, MCH, NGOs and parents of preterm infants, among others. Their attention focus towards educating the public, providers and investigating risk factors associated with the high preterm rate in PR.

\*Law No. 32, Jan 10, 1999: To establish areas designed for breastfeeding and diaper change for young children in malls, government centers, ports and airports.

\*Law No. 239, Nov 2006: This law amends Law No. 427 of 2000 to increase to one hour (originally 30 minutes) the time working moms have for breastfeeding or milk extraction at their work settings.

\*Law No. 311, Dec 19, 2003: A legislative mandate to require coverage for newborn hearing screening and audiological diagnostic testing for all health insurance plans in PR.

\*Law No. 79, Mar 13, 2004: Prohibits the administration of any breast milk substitute to newborns without the written consent of the mother or a pediatrician's recommendation. Any institution that violates this law will be fined.

/2013/ Law No. 138, September 21, 2010: Amended Law No. 354 -2000, to included pregnant women in the list of people authorized to use the express line for services in governmental and private entities.//2013//

\*Law No. 95, Apr 23, 2004: Forbids discrimination against women who breastfeed in any public setting.

\*Law No. 156, Aug 2006: This law protects women's rights during delivery, birth and postpartum period, among others, having a companion during the delivery process if she wishes to, being informed of the surgical procedures that may be available or necessary, benefits of breastfeeding, and vaginal delivery as her first choice if no complications arise.

\*Law No. 79, Jun 2008: To require all businesses selling alcoholic beverages to have a poster with an advice aimed at women of reproductive age to raise their awareness on the risks of having a baby with birth defects if they consume alcohol while pregnant.

\*Executive Order 2008-40, Aug 2008: Convened a commission to address the increasing tendency of C/S deliveries in PR. Following this, an Administrative Order was issued by the Secretary of Health in Dec 2008 to develop a public policy aimed at reducing unnecessary C/S procedures while promoting vaginal deliveries in the Island. The MCH Division collaborated in the elaboration of the public policy document. A Senate legislative piece is in progress to address some of the issues related to this Order.

\*Healthy Start Consortium and Advisory Board to the MCH programs. Currently, it consists of about 40 members who represent public agencies including the PRDOH, academia, community based organizations, Medicaid, ASES, WIC, consumers, etc.

/2012/ During 2010, the Healthy Start Consortium had 30 active participants.//2012/

\*Preconception Health Promotion Committee: Has representatives from ACOG, the MCS Health Insurance Company, HS, WIC, Birth Defect Registry staff, midwives and MCH Division staff. It aims at increasing awareness of the importance of a woman maintaining an optimal health in the preconception period to obtain better pregnancy outcomes. Among other strategies, the Committee developed a pilot project intended to improve the interconceptional health of women with diagnosed diabetes. The collaboration of WIC and MCS is pivotal in carrying out the project. Participants will receive four educational interventions on selected topics provided by staff from WIC, MCS, and MCH Division.

\*A Collaborative Agreement between MCH and the PRDOF allowed us to provide them with the TA they needed to replicate our HVP model in two regions. MCH and HS staff trained them on our home visiting procedures, risk assessment tools and shared with them our HVP manual and data entry forms. They provide services to women in municipalities where we currently lack a HVN, primarily new cases with strong suspicion of family violence, sexual abuse or already under child protective services.

## /2013/The PRDOF "Nido Seguro" reaches 19 municipalities, including 4 where there are no HVN from MCH during 2011.//2013//

\*A collaborative agreement between the MCH Division and ASSMCA allows active participation in each other's Advisory Committees and sharing of data, trainings and educational materials.

\*Committee for the Development of the Preventive Health Guidelines for Women of Reproductive Age: ACOG, the PR College of Physicians, ASES, HS and MCH Staff, among others, are included. It intends to review the current PRDOH prenatal guidelines to update and expand them to cover all aspects regarding preventive health measures and services for WCBA. The

Committee held its first meeting in May 2009.

\*Perinatal Care Guidelines Review Committee (PCGRC): Established to develop uniform guidelines to identify the capacity of perinatal care services of Hospitals Island wide. The Committee is comprised of obstetricians, pediatricians, neonatologists, perinatal nurses, emergency transportation services, epidemiologists, among others.

/2012/ \*Law No. 58, April 8, 2011: To declare the first Friday of March of every year as the "Día de la Alimentación Infantil" (Infants Nutrition Day), with the objective of raising awareness among Puerto Rican children and youths about the importance of healthy eating.//2012//

/2013/ The PRDOH have selected and contracted the FQHC - "Salud Integral en la Montaña" for the implementation for the EB curriculum for the ACA Maternal, Infant and Early Childhood Home Visiting Program in two municipalities of the mountain area identified as high need.//2013//

#### Children and Adolescents:

\*Law No. 25, Sep 1983: Requires complete immunization as established by the PRDOH to all preschool, school age children and students at university level at the time of enrollment.

\*Law No. 259, Aug 31, 2000: To establish an Emergency Medical Service System for Children Program for the prevention and surveillance of pediatric emergencies. The law assigns \$100,000.00 per year for the implementation of the program. This legislation allows the sustainability of the EMSC program granted by the federal government. The EMSC Advisory Committee is composed of 9 members from public agencies, hospitals, 911 services, health professionals and community members.

\*Law No. 296, Sep 1st, 2000: Mandates an annual medical evaluation according to EPSDT standards for all children enrolled at day care centers, Head Start programs, and private and public schools.

\*Law No. 177, Aug 1st, 2003: For the wide-ranging protection and well being of childhood. It requires coordination (Art. 6) between the DOF, DOE, DOH, AMSSCA, Housing Department, Justice Department & Police Department, among others.

/2013/ Law No. 223 -2011: "Ley Protectora de los Derechos de los Menores en el Proceso de Adjudicación de Custodia". This law promotes that parents who are divorced or separated have as their first option to share the custody of their children, provided as long as, it's for the well-being of them. This mean that parents have the same duty to get involve in daily activities of their children, share time and take care of them. //2013//

/2013/ Law No. 246 - 2011, replaces Law No. 177 -2003: "Ley para la Seguridad, Bienestar y Protección de Menores" to protect children from abuse and neglect. This law establishes the citizens' responsibility to take care of all children. Also, provides tools to the PR Department of Family to act promptly in situations to get custody of children victim of abuse or neglect.//2013//

\*The PR Asthma Coalition: Implemented in 2000 to reduce morbidity-mortality due to asthma in PR. The representative from the SSS Health Insurance Company is the president. //2013/ The president of the PR Asthma Coalition is a Pneumologist. //2013//

\*Law No. 56, Feb 1, 2006: In 2005, PRDOH and the Asthma Coalition urged the creation of the "Law for the Treatment of Students with Asthma While in School". As a result Law 56 was enacted in 2006, which recognizes the right of students with asthma or other related conditions to self-administer medications in school with the consent of their parents or guardians.

\*Law No. 107, August 10, 2007: requires a special license for motorcycle drivers. It requires taking a written exam, receiving a special training provided by a licensed instructor, becoming certified and then taking a road test. To drive a motorcycle a person must be 18 years of age or older, wear a safety approved helmet and follow a dress code. Carrying passengers younger than 12 years of age is prohibited.

\*Law No. 220, Aug 21, 2004: To establish the Bill of Rights for pregnant teens enrolled at public schools.

\*Law No. 66, Mar 2, 2006: Amended Law No. 40, the Law to Regulate Smoking in Public and Private Places. This law aims to protect the non-smoking public from the harmful effects of environmental tobacco exposure, and to increase awareness of the health consequences of smoking. It bans smoking in all public spaces, including workplaces, businesses, schools and universities, day care centers, private vehicles when a child under age 13 is a passenger, restaurants, cafeterias, bars, pubs, convention centers, parks, and almost all private and public spaces. Exceptions are made for businesses that are dedicated exclusively to the sale of tobacco products, private homes, and hotel rooms designated for smoking.

\*Law No. 2, Feb 29, 2008: Requires all health insurance companies to cover smoking cessation methods and products for participants of the plan. It took effect in July 2008.

\*The PR Penal Code was amended in 2007. Some of the indicators related with adolescents will be impacted by this reform. The age for an adolescent female to consent to have sexual relations has been increased from 14 years to 16 years. This change limits the services that can be provided to a sector of the adolescent population.

\*Interagency agreements with the DOF and the Early Head Start Consortium are being revised and updated.

\*The UNHS and ECCS have their respective inter-agency steering committees.

\*An MOU, signed in Apr 2008 by ASSMCA and the MCH Division, is still valid to share direct database from the Monitoring the Future survey ("Consulta Juvenil", Spanish name) which measures risk behaviors in adolescents attending schools. This data will allow the MCH SSDI project to carry out additional in-depth analysis of high risk behaviors among adolescents such as tobacco, alcohol and drug use, and premature sexual activity, among others.

\*The Juvenile Correction Administration continues collaborating with the MCH Adolescent Health Program in the implementation of the youth promoters program in two of their juvenile detention centers.

\*Title X clinics, federally qualified heath centers and PROFAMILIA, an NGO that specializes in reproductive health issues, continue providing family planning services to some of the GIP participants we have not been able to serve due to our limited fiscal resources.

\*"Alianza Niños y Jóvenes Activos, Saludables y Bien Nutridos" (Alliance for Healthy and Well Nourished Children and Adolescents): Was established in Dec 2007 to educate the public on issues of nutrition and physical activity in children and youths, promote the establishment of a public policy that would support local efforts to reduce the obesity epidemic, establish a surveillance system and conduct research to identify risk factors associated with the condition. Members include representatives from the Departments of Agriculture, Labor, Housing, Education, Health, Sports and Recreation, AAP, Insurance Commissioner, Commission on Nutrition, WIC, College of Nutritionist, and UPR School of Public Health, among others.

/2013/ The alliance is now known as Pediatric Obesity Prevention Alliance.//2013//

/2012/ \*Law No. 18, February 18, 2011: To declare the second week of November of every year

as the "Semana de Puerto Rico Muévete" (Puerto Rico Let's Move Week) aimed at developing initiatives that promote active lifestyles in Puerto Rico. This initiative brings tools for schools, families, and communities to promote physical activity among children.

\*Law No. 91, June 10, 2011: This law amends Law No. 235 of August 2008, which establishes the "Protocolo Uniforme de Atención para el Niño Obeso" (Uniform Protocol for Attending Overweight Children) in the public schools, which orders the PR Departments of Health, Education, and Sports and Recreation, to divulge, thru their web pages, all information related to the protocol created by this law.//2012//

#### Children with Special Health Care Needs:

\*Law No. 84, July 2, 1987: Created the Hereditary Diseases Program to provide screening, diagnostic and treatment services for hereditary diseases that affect relatively large segments of the population. The services include the Newborn Screening Program for congenital hypothyroidism, phenylketonuria, galactosemia, hemoglobinopathies and classical congenital adrenal hyperplasia. The Hereditary Diseases Council advises the Secretary of Health regarding the disorders to be included in the newborn screening and the required laboratory tests.

\*Law No. 51, Jun 7, 1996: It orders the provision of comprehensive educational services to individuals up to 21 years of age who have special educational needs. An Advisory Council must be established by law. Under this law, the DOH is responsible to screen all children born in PR in health facilities across the Island for developmental delay during the first three months of age. Identified children will be referred to the Early Intervention Program (EIP) with parental consent to determine eligibility and to provide services until age 3 years. This strategy will assist the program to increase the number of children detected and enrolled during the first year of age. From ages 3 to 21, the Department of Education is ultimately responsible for providing educational and related services and the required coordination with six other agencies.

\*Law No. 311, Dec 19, 2003: Provides for the establishment of a mandatory early hearing screening program for all newborn in PR and requires all health insurers to cover the screening.

\*Law No. 238, 2004: Bill of Rights for Persons with Disabilities to adopt public policy to address the needs of persons with disabilities.

\*Law No. 103 of 2004: Bill of Rights of Children and Adults with Autism to establish a comprehensive system of protection for persons with Autism including medical services, education, physical, social and psychological rehabilitation.

\*Law No. 351, Sep 2004: To establish a Birth Defect Registry at the PRDOH. This law requires that all providers and agencies which come in contact with cases of birth defects must report them to the PRDOH regardless of gestational age. The Birth Defects Surveillance System program is responsible for developing protocols for an active surveillance system and to establish a data bank to allow research on contributing risk factors to birth defects. The principal objectives of this law pursue the determination of incidence and prevalence rates of selected births defects in PR, develop prevention strategies, promote early referrals of identified cases to available services and promote the collaboration among the public at large and private partners concerned with this issue. Regulations for this Law were developed and approved by the PRDOH Legal Services in June 2006.

\*RC No. 289, 2006: Orders the PRDOH to establish a Register for Children and Adults with Autism.

\*Law No. 122, 2006, amended Law No. 318 (Dec 2003), which designated the PRDOH as responsible for developing and implementing public policy for the evaluation, management, and registry of children and adults with autism. This law was implemented to reduce the number of members of the Autism Interagency Committee responsible for developing the public policy for

the population with Autism and other disorders under the Autism Spectrum.

/2013/ On March 2, 2012, the PRDOH Secretary signed the Public Policy about surveillance, identification and treatment of the Autism Spectrum Disorders, for the population 0-3 y/o. //2013//

\*Law No. 3, 2007: Puerto Rico Assistive Technology Program (PRATP) Law requires UPR-PRATP to implement a permanent program of recycling, leasing and reusing assistive technology equipment in coordination with other government agencies. The purpose of the law is to increase access to AT devices and services for persons with disabilities.

\*The Birth Defects Surveillance and Prevention System (BDSPS): Continuously promotes awareness of birth defects and associated risk factors in order to prevent occurrence and recurrence in populations at risk. The BDSPS promotes preconceptional care and prevention messages to emphasize the importance of the inclusion of healthy habits in order to help prevent health defects. Culturally sensitive birth defects prevention educational material is distributed among trained collaborators and general public. The BDSPS partners include public and private agencies and other community resources related to public health, health care services, health insurance and education.

\*United Funds of PR: The CSHCN director participates with other representatives of the community.

\*Law No. 125, 2007: The law that created the Health Services Administration of PR (ASES) was amended to provide medical equipment and nurse specialist home visits for children 0-21 years of age on chronic ventilation via tracheotomy.

\*Law No. 176, Aug 2008: Law to Improve Access to Essential Services for People with Severe Disabilities 21 years and older.

\*Law No. 259, Aug 2008: To amend Bill of Rights for Persons with Disabilities to assure equal access to public and private programs and services for persons with disabilities.

\*In 2008, the Institute for Developmental Deficiencies of the UPR provided TA and trainings to HVNs on the administration and interpretation of the Ages and Stages Questionnaire (ASQ).

## Other Collaborations:

\*Collaborative efforts are ongoing with the Public Health Emergency Response Preparation and Coordination Office. Currently, more than 30 MCH employees have been trained in the Incident Command System and provided with a curriculum specially prepared to train public health professionals on how to respond in different emergency situations. MCH staff continues participating in their table top and full scale exercises. With their assistance the MCH Emergency Response Plan and COOP plan were prepared.

## F. Health Systems Capacity Indicators

Puerto Rico received Medicaid funding capped since 1966 under the Social Security Act, Title XIX. SCHIP Program benefits became available to PR in 1998. Other state and municipal funds are added to provide services for all low income individuals through the Government Insurance Plan (GIP). These federal (Medicaid and SCHIP) funds represent approximately 13.6% of the total funds for health services to economically disadvantaged population in PR.

The Puerto Rico Medicaid Program (PRMP) - responsible for determining eligibility criteria - has established a State Poverty Level (SPL) because the income levels in PR are significantly different from those in the mainland. The eligibility criterion of a family with a single person is a

monthly net income less than \$800 (200% SPL). A family of two (mother and child) with a net income of \$990.00 per month is considered to be 200% below the SPL. This SPL was set based on the cost of living expenses in PR and scaled to reflect additional family members (see attachment Table III-1 State Poverty Level).

Medicaid funds are used primarily to cover families whose incomes are below 100% SPL. The Puerto Rico Medicaid Program (PRMP) uses SCHIP funds to provide coverage for children whose families' incomes are between 101% SPL and 200% SPL. Children may be also considered eligible for the GIP if their family's income is too high for GIP eligibility for Medicaid funds but too low to have a private insurance plan. Those who qualify for the GIP will have coverage for one year. Once this time elapses, the family must be recertified in order to continue receiving GIP coverage.

In PR, pregnant women with net incomes 100% below SPL receive GIP sponsored by combined funds, mainly the Medicaid funds. For pregnant women between 101% thru 200% we use state and municipal funds. SCHIP funds are not used for this special population. The PRMP certifies a pregnant woman up to two months after delivery. Subsequently, she will be notified to return for eligibility re-evaluation within six months or one year, depending on the expected changes in family incomes. In situations where additional income can be documented, family benefits may be eliminated or limited to a three-month period.

Pregnant teens face the greatest challenges when attempting to initiate PNC because they have to be evaluated for GIP qualification by the PRMP in order to receive prenatal care. This evaluation is done separately even in cases where the adolescent lives with her family. The PRMP also evaluates the eligibility of their families excluding the teen pregnant women as a family member in order to continue receiving the GIP.

Infants born to mothers insured by the GIP can use services up to 2 months after birth. Mothers have to notify the PR Medicaid Program in order for infants to continue receiving health services. The newborns' coverage includes ambulatory services and subsequent hospitalizations if needed.

In spite of the recent economic hardships and the reduced revenues during this reporting year, PR has neither modified GIP eligibility criteria nor changed the process for obtaining coverage. The ASES administers the GIP while the Medicaid Program certifies participants' eligibility. Specifically, ASES provides low income persons access to health services through private health insurance. It also monitors and evaluates contracted insurance companies to ensure free choice, quality and cost-efficient services.

In October 2010, ASES inaugurated a new integrated health model called Mi Salud. This model like the previous one is based on health delivery systems that use capitated managed care models. The new model includes access to specialists without referrals within a preferred provider network, eliminating the primary provider's authorization. The contracted insurance companies (Triple S and Humana) are contracting providers in their regions to form their provider networks. Since limited numbers of specialists accept Mi Salud, beneficiaries must request authorization from the primary provider in order to receive specialized medical services outside the network. For example, a study of Pediatric Centers for CSHCN carried out in 2011, shows that only 46% of pediatric specialists that were surveyed accept GIP.

The primary medical groups, represented by IPAs, receive a fixed per patient per month rate to cover all individual medical expenses and services. These services are neither itemized nor separated according to the funding source.

In the GIP, obstetrical services are part of a carve-out that is excluded from the capitated managed care system model. In order to qualify for OB coverage under the GIP, women must provide PRMP a positive serological test confirming the pregnancy or a certification of pregnancy

including the gestational weeks by the OB. Women are free to choose an obstetrician and make an appointment to initiate their PNC.

#### HSCI 01

Asthma continues to be an important health issue in PR. According to the 2010 PR Behavioral Risk Factor Surveillance Survey, approximately 229,340 children under 18 years old (22.0%) were diagnosed with asthma by a health professional some time during their lives. Among them, 12% persisted with asthma. These measures were higher in Puerto Rican children than in US children. In addition, childhood asthma seems more prevalent in males than in females. During 2010, no asthma related deaths in children 1-14 years old were reported (preliminary data). During 2011, the rates of children that visited ER were 483.7 per 10,000. During 2011, the rates of children hospitalized for asthma (ICD-9 Codes: 493.0-493.9) per 10,000 in children less than five years of age, using data of the first six months, was 118.03. There was a decrease in the 2010 rate (173.2) when compared to the 2009 rate (310.2).

The desired outcome is the reduction in the rate of children hospitalized for asthma. Changes needed for the desired impact include the following areas: a) Policy - follow-up on the implementation of Law #56 (2006) that allows students to self-administer asthma medications at school; follow up on Senate Bill #1329 and the PRDOH Administrative Order #248, which aim to reduce the burden of asthma in our population; make compulsory the continuing medical education on asthma management following the National Asthma Education and Prevention Program (NAEPP) guidelines for pediatricians, generalists, emergency room physicians, neumologists and internists; make compulsory the elaboration of the asthma action plan for children with asthma to attend school; b) Programmatic actions - promote the reimbursement for asthma education provided to patients; carry out a massive asthma awareness campaign to empower asthma patients and caregivers regarding adequate asthma management and selfcare; c) Research - promote the implementation of an economic study among health insurances to estimate the present cost of asthma in PR and an underwriting study to estimate the impact of changes in the model of care and the cost-effectiveness of asthma management interventions with patients compared to hospitalizations and ER visits; and d) Evaluation - evaluate the existing model of care and assure adequate coverage for asthma patients including a standard protocol, evaluate the results of quality control monitoring of health care provided by physicians and barriers for adequate care to develop public policy according to findings.

#### HSCI 04 & 05 A-D

A very difficult task encountered is to tell apart Medicaid and Non-Medicaid paid services. The difficulty lies in the way GIP is financed, the Medicaid cap and the capitated managed care model adopted. The MCAH Program uses GIP beneficiaries as a proxy for Medicaid beneficiaries and Non-GIP for Non-Medicaid beneficiaries. The funding level for 2011 was \$377.5 million, a 17.1% increase from that in FY 2010 (\$312.9 million). It is worth mentioning that eligibility for GIP among pregnant women is below 200% SPL opposed to Medicaid that is only 100% below SPL.

The MCAH Program uses data from birth certificates (BC) and death certificates (DC) to calculate prenatal care (PNC), Kotelchuck Index (KI), infant mortality (IM) and low birthweight (LBW). However, 2011 VS data is not available. Average Annual Percent Change (AAPC) between 2000 and 2010 were calculated to estimate 2011 data (see Appendix 5). Missing data for GIP and non-GIP groups for each indicator was excluded in the trend analysis (2000 to 2010). Therefore, the percent / rate reported in "ALL" will be different from those reported at PM 18, HSCI 4, OM 1, and HSI 1, respectively.

2011 Average Annual Percent Change (AAPC) of infants born to pregnant women receiving PNC beginning in the first trimester (84.1%) increased by 6.7% when compared with 2000's rates (78.8%). An 11% increase (2011: 81.9%, 2000: 73.8%) was observed in the GIP-covered group; meanwhile, the non-GIP group increased only 3.8% (2011: 90.8%, 2000: 87.5%). Preliminary

2010 VS data shows that 82% percent of women with a live birth received PNC beginning in the first trimester; the percent increased with increasing maternal age (10-14 years: 53.3%, 15-17 years: 68.5%, 18-19 years: 72.4%, 20-34 years: 81.6%, and = 35 years: 83.2%).

2011 AAPC shows that 85.2% of women 15 to 44 years of age with a live birth had participation levels in expected prenatal visits greater or equal to 80%; this represents an increase of 18% since 2000 (72.2%). A 27.6% increase (2011: 83.3%, 2000: 65.3%) was observed in the GIP-covered group; meanwhile, the non-GIP group increased 7.7% (2011: 90.6%, 2000: 84.1%). Preliminary 2010 VS data shows that 76.4% percent of women with a live birth had adequate or adequate plus PNC according to the KI; the percent increased with increasing maternal age (10-14 years: 67.1%, 15-17 years: 75.6%, 18-19 years: 78.4%, 20-34 years: 84.9% and = 35 years: 87.5%).

The proportion of LBW babies born in 2011 was estimated at 12.8%; this represents an increase of 18.5% since 2000 (10.8%). An increase of 15.7% (2011: 13.3%, 2000: 11.5%) was observed in the GIP- covered group; meanwhile, the non-GIP group increased 21.1% (2011:11.5%, 2000: 9.5%). Preliminary 2010 VS data shows that 12.6% of newborns were LBW babies. The proportion of LBW babies decreased with increasing maternal age (10-14 years: 15.2%, 15-17 years: 16.4%, 18-19 years: 13.6%, 20-34 years: 12.1% and = 35 years: 12.7%).

The proportion of IM in 2011 was estimated at 8.1%; this represents a decrease of 16.1% since 2000 (9.7%). An 18.8% reduction (2011: 8.3%, 2000: 10.2%) was observed in the GIP-covered group; meanwhile, the non-GIP group decreased 23.7% (2011: 6.6%, 2000: 8.6%). An analysis of IM according to maternal age for 2010 is not possible because IM preliminary data is not available.

The poor birth outcomes (LBW and IM) in the GIP-covered group females could be an indication of late PNC initiation when compared to the non-GIP group.

The MCAH staff immediately refers pregnant women to the PRMP and to obstetrical services to make certain she begins PNC without delay. Furthermore, collaborative efforts with WIC, Head Start Programs, PRDOF, and PRDOE provide additional opportunities to identify and refer women needing PNC services.

The PNC, KI, LBW and IM are computed annually and included with 17 other health indicators in the Integral Index of Maternal and Child Health (IIMCH). This allows us to track the MCAH health status by municipality and health region, helping us to identify those sectors of PR that need targeted interventions. The data generated is widely disseminated to stakeholders responsible for promoting first trimester admission and quality of PNC (refer to Table II-1, Section V-B). Other sources used by the MCAH Program to monitor LBW, PNC and its adequacy based on the time it was initiated, are the HVP, WIC and the PRAMS-like ESMIPR study.

The MCAH Program is constantly working to improve these indicators. Through the HVP, the MCAH provides case management / care coordination, health education and counseling to pregnant women with complex medical and social risk factors associated with LBW and VLBW infants. The WIC Program also contributes toward reducing these rates by providing nutritional support to high risk women. The final goal is to empower women to take control over their health.

The MCAH Program continues working with the Fetal and Infant Mortality Review (FIMR) Committee in the identification of health and social issues associated with poor outcomes, as well as community strengths and constraints. On the basis of the analysis of the cases, the FIMR made recommendations related to nutrition, PNC, preconception care, support system, education and hospital services. Those recommendations were presented to MCS (the MCO that covers GIP beneficiaries in the Mayagüez Region by that time), stakeholders and the CAC. On November 2011, the FIMR held a symposium in which it presented - to the medical community - the findings, recommendations and ways to improve maternal-infant health to reduce infant

mortality.

PR Healthy People (HP) objectives for 2020 are currently in progress. Therefore, 2010 Objectives will be used to evaluate the MCAH Program desired outcomes. The 2010 PRHP objective for women receiving PNC beginning in the first trimester was 86%; only the Non-GIP group (87.1%) achieved this objective for 2011. On the other hand, LBW for GIP group was 13.1% and for the Non-GIP group 11.1% for 2011. Neither group reached the 2010 PRHP of 8.1%. Meanwhile, IM for the GIP group was 8.2/1,000 and 6.5/1,000 for the Non-GIP group. Neither group attained 2010 PRHP goal (6.2/1,000).

It will be necessary for the MCAH Program to strengthen its educational component to disseminate relevant information regarding preconception health, the importance of beginning PNC during the first trimester, the identification of signs and symptoms of preterm labor and the benefits of family planning. Particular emphasis must be placed in making PNC health professionals aware of their responsibility to comply with the current policy that requires prompt enrollment of a pregnant woman into PNC once she makes the request, identifying high risk conditions and making referrals to proper hospital facilities with adequate perinatal care level.

#### HSCI 07B

In the last several years, dental caries have been the most common chronic childhood condition reported in Head Start enrollees. According to the MCAH needs assessment, the problem with caries is due largely to children's intake of sweet foods. For the school year 2011, almost one of four children of the Head Start participants (24.8%) had dental cavities which represents an increase of 15% compared to the previous year (2010).

During CY 2011, the PR Health Care Commissioner Office reported that 3.8% children with GIP and 2.6% children with private health plan aged 8 through 9 years had a sealant applied to their teeth for a total of 6.4% insured children. Comparisons of this percent with year 2010 are not feasible due to changes in the methodology to collect the information. However, the analysis for the others years (2006 thru 2009) shows an average of 5.8% insured children had sealants.

Sealants, as well as dental evaluation are services covered by GIP and private health plans. A significant proportion of children with private health insurance have access to dental care. Families covered by GIP are not required to have a referral from their Primary Care Provider to receive oral health services.

To emphasize the importance of a good oral health, the 2008 Revised Pediatric Guidelines include a dental referral for all 12 month old children maintaining the previous recommendations.

In CY 2010, ASES reported that 43.7% of all EPSDT eligible children aged 6 through 9 years received dental services. This represents an increase of 95% when compared with 2009 data (22.4%). During the last 5 years an average of 39% EPSDT eligible children aged 6 through 9 years received dental services.

In spite of the coverage included in the health plans, access to pediatric oral health services is difficult to attain. In 2011, the Office of Regulation and Certification for the Health Professional had registered about 30 odontopediatrics. In 2012, according to the PR College of Dental Surgeons' website, most of the 21 registered pediatric dentists are located in the large metropolitan areas. Of this, 7 pediatric dentists provide services in two or more municipalities. These numbers make evident the shortage of dentists to cover the oral health needs of children.

The MCAH Program is collaborating with other health programs to promote good oral health. In March 2012, the MCAH Program presented the findings of the Dental Sealant Prevalence Study in the Tenth Tobacco Control Summit of the Health Promotion Program.

The Oral Health Program of the PRDOH submitted a Supporting Oral Health Workforce Activities proposal to the CDC to develop the infrastructure needed to improve its capacity to address oral health and access issues, and to promote dental sealant applications and community-based prevention strategies such as water fluoridation. MCAH Program will collaborate with this initiative to build the infrastructure needed to address the barriers of oral health services, promote public policies such as water fluoridation, fluoride varnish applications and dental sealant applications.

To facilitate access to oral health services for the pediatric population, the MCAH Program will evaluate the feasibility of implementing strategies to increase preventive services in underserved communities through pediatrician and dentist offices located in such communities. Some pediatricians have already expressed interest and willingness to apply fluoride varnishes in their offices during routine health checkup visits.

The MCAH Program continues promoting the compliance of the Pediatric Preventive Care Guidelines. Indeed, one MCAH priority is public education about dental benefits included in GIP coverage and good oral health practices such as requesting providers to apply sealants to prevent cavity formation.

#### HSCI 09A

The MCAH Program has a staff of public health professionals with expertise in the fields of social and natural sciences that analyze data and monitor changes in the health status of our target population. They are responsible for developing indicators that measure the implementation of the life course perspective, surveillance systems, data management (data linkages), ongoing studies and other MCAH relevant surveys.

Annually, PRSSDI Program obtains several linkages files (birth-infant death files and Medicaid eligible birth files) performed by the Office of Informatics and Technology Advances (OITA). The OITA has the main responsibility for developing databases of births, deaths, stillbirths and Medicaid eligible participants' files.

The linkage of birth - Newborn Screening Program (NSP) files poses a challenge. The new director contracted an informatics technology company to develop a customized information system to collect, analyze and report the newborn screening information in a timely manner. They began to collect information through this new information system in January 2012. This company is also developing an algorithm to convert and retrieve the files from the old information system. However, they anticipate lost of data. PRSSDI Program will continue requesting reports to provide the number of newborn screened with their status and follow up until we can perform the data linkage electronically. A manual linkage is performed by the Birth Defect Program only for the screened positive newborns since 2009.

In order to enhance the data gathering of newborn with birth defects, we are currently matching the cases identified by the Birth Defects Surveillance System (BDSS) with VS records. Yearly, this procedure increment about 5 to 10 new cases not previously detected by the surveillance system.

Access to several surveys allows us obtaining reliable information of the MCAH health status. Because PR lacks the necessary infrastructure to carry out the PRAMS, PRMCAH developed an ongoing PRAMS-like survey known as ESMIPR designed to identify and monitor pertinent perinatal information to report progress on Title V performance. It also provides evidence for program decision-making and policy development. This self-administered questionnaire is done every two years with a sample of about 2,000 post partum women who had a live birth in one of the hospitals that in the previous year had an average of at least 10 deliveries per week. The PRSSDI Program will continue evaluating the capacity of PR to participate in the PRAMS grant. The most recent survey is in progress.

Other relevant information is acquired through the Monitoring the Future Survey, Spanish version -Consulta Juvenil (CJ) performed by the Administration of Mental Health and Anti-Addiction Services (ASSMCA, by its Spanish acronym). CJ is a biennial school survey designed to monitor patterns and trends in the use of substances and other unhealthy behaviors among adolescents in Puerto Rico; it has been an ongoing study since 1990. In 2009, PRSSDI Program achieved access to the electronic database of this survey.

Supplementary information about adolescents comes from the YRBSS although this survey is not representative of the population.

Through the years, TVMEU has also established mechanisms to obtain data from multiple sources: WIC, PR Medicaid Program, Immunization, Oral Health Program, ASES, Catastrophic Illness Office and Pediatric AIDS, NSP, Genetic Counseling Clinics, Insurance Commissioner, Forensic Science Institute, EMSC and the Departments of Police, Education, Family and Transportation.

In addition to data access, PRMCAH has already begun the process of incorporating the life course perspective into its program activities. As part of the process, central level staff received training on the life course perspective. A life course manual was also developed to guide the process of integrating the life course into the MCAH programs. This guide is a multistep, practical, insightful procedure through which to ascertain what actions fit into the life course; what changes are needed and how to make the necessary changes. The guide was first applied to the HVP. Currently, the evaluators are developing metrics to measure the scope of the MCAH Programs to comply with the life course elements.

A culturally appropriate instrument developed in the 5-year needs assessment (Health Indicators Questionnaire) was used once more to gather information. This questionnaire identifies the population needs, prevention and intervention strategies, and agencies that provide services or may possibly collaborate in addressing the needs. Members of the MCAH Regional Boards discussed and answered this instrument through several meetings. On the basis of the analysis of the information gathered, it was determined that no changes are necessary in the PR State priorities.

The MCAH actions are greatly influenced by the challenges and barriers imposed by the political context, the health care system, and the quality of data contained in different information systems, among others. The Law No. 7 of March 2009 that pursued the reduction of the government budget eliminating transitory and some permanent personnel, affected adversely the continuance of the public agencies' action plans. Law 7 had its effects on MCAH in two ways: firstly, the lost of several program collaborations that shared valuable information used to monitor MCAH health status and secondly, delays in requested services and information due to the increasing responsibilities and tasks performed by the remaining personnel of public agencies.

Another challenge faced by MCAH, for having reliable information in a timely manner, is the problems arising in the government health insurance. During 2011, ASES cancelled the contract of one of the two insurance companies due to the violation of the terms and conditions of "Mi Salud" Contract, an action that affected almost half of the GIP beneficiaries. Despite having contracted another insurance company and attempts to minimize transition problems, many processes and GIP beneficiaries were still affected negatively. The transition from one insurance company to the other affected adversely the quality of data.

The PRSSDI will continue working to assure access to relevant information and data necessary for policy and program development to the Maternal, Child and Adolescents Program. For instance, PRSSDI provides assistance to have electronic and friendly-user reports to assist in the integration of information and enhance data sharing in a timely manner.

As MCAH Program continues incorporating the life course framework to address the health of

populations and concomitantly health policy and programming, the PRSSDI will provide support in the development of evaluation instruments to document the integration of life course principles into the MCH policy development, strategic and operational plans, and program evaluation. For more information, please see the attachment in the Other Program Activities Section.

Beyond the MCAH Program, the PRSSDI as well as the TVMEU will be able to detect changes in health status and providing in-depth evaluation of these trends. The information obtained will be shared with Title V, key stakeholders and collaborators to assist them in the processes of establishing public policy, designing, implementing and evaluating programs and activities.

#### HSCI 09B

The most critical or sentinel indicators for our work are gathered in the Administration of Mental Health and Anti-Addiction Services survey "Consulta Juvenil" (CJ) which include: continuous representative data gathered at public and private schools bi annual survey, tobacco use trends (sometime in the life, last year and last month) for gender and grades (5th to 12th), initiation or recent initiation, accessibility of tobacco products to youths, perception of tobacco harm effects by youths, and discontinue efforts in tobacco users. Other information gathered in CJ of importance is the risk and protective factors associated to tobacco use.

A consistent decrease in the percent of students using tobacco products in the past month for the past ten years has been the trend in PR as evidenced in the CJ-IV (1997-1998) and CJ-VII (2005-2007). In the elementary students' survey, 1.5% of 5th -6th graders reported cigarette use in the past month. The percent of use for males (1.2%) was higher than females (0.1%). In this age group there was an 86% decrease in tobacco use. The middle and high school CJ VII survey reports last month's tobacco use decrease as follows: 75% in 9th graders from 22.5% to 5.6%; 67% in 10th graders from 25.4% to 8.3%; 52.7% in 11th graders from 21.8% to 10.3% and 52% in 12th graders from 24.4% to 11.7%. As in previous years, tobacco use during the previous month was slightly higher in middle school males (3.5%) than females (3%) and in high school males (11.5%) than females (8.4%). Although tobacco use in the past month has shown a tendency to decrease, it becomes more frequently used with increasing age in both sexes. Thirty eight percent (38%) of high school students reported buying their cigarettes in gas stations (36.3%), supermarkets and small stores (23.4%) even though PR law bans cigarette selling to minors less than 18 years of age. Middle school smokers get them from family and friends or purchase (31%). Elementary students get them from friends (51.5%), markets or gas stations (38.1%) and other adults that are not their parents (31.3%). Half of all students reported starting tobacco use before 14 years of age.

Our desired outcomes include: reduce initiation of tobacco use, reduce last month tobacco use from elementary to high school, increase discontinuation efforts in already youth tobacco users, increase enforcement of laws against selling tobacco products to minors and increase awareness of adults and general public of the ominous effects of tobacco use in early years and its effect on the developing brain.

PR is the one of the most restrictive jurisdictions regarding legislation in tobacco control use and protection from second hand smoke exposure. The Coalition for a Tobacco Free PR (CTFPR) (1993), the implementation of the PR Quit line (PRQ) (2004), the approval of the Act No. 66 (2006) and Tobacco Control Summit (TCS) have been important to establish public policy and implement new strategies to prevent and control tobacco use and to help smokers quit smoking. Nevertheless there is much to be done to reduce early initiation and tobacco use by kids and youngsters. Positive Youth Development (PYD) initiatives needs to be established or continued to reach public elementary school students to prevent smoking initiation. The MCAH's middle school YHPP is a peer to peer and PYD Program that teach youth about the dangers of smoking so they can develop activities directed to their peers and communities. Other initiatives need to be reestablished or started for elementary school (before 14 years of age). The PRDOH Health Promotion Division implemented with success "Mi residencial libre de humo" initiative in 5th and

6th graders in 4 of the 5 municipalities with highest teen smoking initiation rates. Programs like this one and other should be brought to the attention of the CTFPR to be evaluated for effectiveness and implemented widely in schools in PR. Other efforts of awareness should be continued.

An attachment is included in this section. IIIF - Health Systems Capacity Indicators

# IV. Priorities, Performance and Program Activities A. Background and Overview

The PR MCH needs assessment process is an ongoing activity carried out on a year round basis. Its purpose is to identify the particular and changing needs of the different MCH population groups. This activity provides the necessary feedback to readjust the MCH work plan to better respond to changes in health needs of the target population. The needs assessment is furnished by the H.P. 2010 national objectives linked to the MCH population (Focus Areas 9, 16 and others); national and state performance and outcomes measures, and the health status indicators established by the MCHB.

Alongside the needs assessment, we also engage in identifying all activities, services and programs in relation to the MCH pyramid levels for each of the population groups. These two proceedings let us to match MCH health needs with available services and to identify disparities in services that should be filled.

Currently, the Title V program has a section comprised of a team of skilled professionals whose main task is to collect the most accurate and timely data to monitor the progress of all performance and outcomes measures, as well as the level of progress in improving the health and well-being of the Puerto Rican MCH population.

Following that, Title V funds are allocated to complement services, to conduct new activities or to implement new programs that will help us to attain the established target of performance and long term outcome measures.

The MCH priorities are determined based on the identified needs, the state capacity to address these needs, the political priorities and input from a broad range of partners including families. The trend analysis for at least five years of the rates of each national and negotiated state performance and outcome measures allow us to set expected targets for future years. According to the required five year Statewide needs assessment process carried out for the 2010-2015 period we submit the following information.

#### Selection of State Priority Needs:

Forty two (42) issues that are affecting women of reproductive age (WRA), pregnant women. infants, children, adolescents and children with special health care needs (CSHCNs) were identified during the Needs Assessment. Topics such as folic acid consumption, mental health. family planning, STD's, domestic violence and alcohol consumption were among those affecting WRA. For pregnant women, the main issues detected were related to the importance of education/orientation on prenatal care (PNC), early PNC initiation, breastfeeding, perinatal mental health and morbidity. Some of the problems affecting the infant population include immunization, birth defects, neonatal death, respiratory conditions, breastfeeding and prematurity. Other issues identified that are affecting children and adolescents are: overweight or underweight problems: child abuse and neglect; conditions for ambulatory care during pediatric age; mental health in children; uninsured children; morbidity; and drugs, tobacco and alcohol use, sexual behavior, violence and suicide among adolescents. The CSHCN staff identified eight potential priorities based on the needs assessment results. The selected potential priorities were: 1) increase the number of CSHCN with adequate health insurance; 2) improve the referral process; 3) develop continuous and reliable data sources about CSHCN and their families: 4) increase the number of CSHCN that have coordinated care, 5) increase the number of CSHCN that receive familycentered care, 6) increase accessibility to specialists, 7) increase the number of CSHCN families that are well informed and empowered, and 8) increase the number of YSHCN that are well informed on their transition to adult life.

A total of fifteen (15) priority needs were selected based on quantitative and qualitative data

analysis, the extent of the health problem, input from collaborators, state political priorities, accessibility of resources to address documented needs and reliable culturally sensitive treatment of management options. In addition, three (3) priority needs for CSHCN were also selected.

Once these priority needs were identified, MCH staff discussed those needs that the PR MCH Program has the capacity to work with. As a result of the information gathered regarding WRA, pregnant women, infants, children, adolescents and CSHCNs, the PR MCH Program work plan focuses in the ten (10) priorities that follow:

- 1. Improve WRA health at the time of conception.
- 2. Develop continuous and reliable data sources and surveillance systems.
- 3. Decrease premature births.
- 4. Decrease morbidity due to chronic conditions in the pediatric population.
- 5. Reduce unintentional injuries among children and adolescents.
- 6. Strengthen the socio-emotional development in the pediatric population.
- 7. Promote healthy lifestyles in adolescents.
- 8. Increase the number of empowered CSHCN families by promoting family competency to identify and manage their child needs through family-centered care.
- 9. Increase the number of CSHCN that receive coordinated care services.
- 10. Increase the number of YSHCN that are well oriented for their transition to adult life.

/2012/ The priorities needs numbers 8 to 10 were rephrased as follow:

- 8. Increase the number of empowered CSHCN families by promoting family-centered care.
- 9. Increase the number of CSHCN that receive coordinated care.
- 10. Increase the number of YSHCH that are oriented for their transition to adult life.//2012//

/2013/ The priority need number 1 was rephrase as follow:

1. Improve WRA pre conception health. //2013//

#### **B. State Priorities**

The 2010 five year needs assessment identified 10 priorities for maternal, child and adolescent health in Puerto Rico. Following we include the levels of the MCAH health services pyramid for each priority. For more details please refer to the Priority Needs and Capacity Section (Part II: Needs Assessment) and to Figure IV-1.

Priority 1: Improve WRA health at the time of conception.

- \*SPM 1 (Proportion of women of childbearing age consuming folic acid)
- \*SPM 2 (Reduce the prevalence at birth of neural tube defects)
- \*NPM 8 (Rate of birth for teenagers aged 15 through 17 years)
- \*NPM 15 (Percentage of women who smoke in the last three months of pregnancy)

This priority is related to the four levels of service according to the MCH pyramid.

/2013/ This priority was rephrased: Improve WRA pre conception health. //2013//

Priority 2: Develop continuous and reliable data sources and surveillance systems.

\*SPM 3 (The degree to which the PR MCAH Program collects, analyzes, and disseminates findings from data pertinent to ongoing target population health needs assessment)

\*HSCI 9a (The ability of the state to assure MCAH Program access to policy and program relevant information)

This priority is related to infrastructure-building services.

Priority 3: Decrease premature births.

- \*SPM 4 (Percent of late preterm births (34-36 weeks of gestation)
- \*NPM 15 (Percentage of women who smoke during the last three months of pregnancy)
- \*NMP 18 (Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester)
- \*HSCI 4 (The percent of women with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80 percent on the Kotelchuck index)
- \*HSI 5A and 5B (The rate per 1,000 women aged 15 through 19 years and 20 through 44 years with a reported case of Chlamydia)
- \*HSCI 5C (Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester)

This priority is related to the four levels of service according to the MCH pyramid.

Priority 4: Decrease morbidity due to chronic conditions in the pediatric population.

- \*HSCI 1 (The rate of children hospitalized for asthma per 10,000 children less than five years of age)
- \*NPM 9 (Percent of third grade children who has received protective sealants on at least one permanent molar tooth)
- \*NPM 14 (Percentage of children, ages 2 to 5 years, receiving WIC services with a BMI at or above the 85th percentile)

This priority is related to the four levels of service according to the MCH pyramid.

Priority 5: Reduce unintentional injuries among children and adolescents.

- \*SPM 5 (The rate per 100,000 of emergency room visits due to all unintentional injuries among children aged 1 to 14 years)
- \*NPM 10 (The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children)
- \*HSI3A (The death rate per 100,000 due to unintentional injuries among children aged 14 years and younger)
- \*HSI 3B (The death rate per 100,000 for unintentional injuries among children aged 14 years and younger due to motor vehicle crashes)
- \*HSI 3C (The death rate per 100,000 for unintentional injuries due to motor vehicle crashes among youth aged 15 through 24 years)
- \*HSI 4A (The rate per 100,000 of all nonfatal injuries among children aged 14 years and younger)
- \*HSI 4B (The rate per 100,000 of nonfatal injuries due to motor vehicle crashes among children 14 years and younger)
- \*HIS 4C (The rate per 100,000 of non fatal injuries due to motor vehicle crashes among youth aged 15 through 24 years)

This priority is related to the four levels of service according to the MCH pyramid.

Priority 6: Strengthen the socio-emotional development in the pediatric population.

\*SPM6 (The number of preschoolers presenting behavioral problems)

This priority is related to the four levels of service according to the MCH pyramid.

Priority 7: Promote healthy life styles in adolescents.

- \*SPM 7 (The degree to which selected organizations incorporate the Positive Youth Development Model in the services provided to adolescents)
- \*HSI 9B (The percent of adolescents in grades ninth through twelve who reported using tobacco products in the past month)
- \*NPM 8 (Rate of birth for teenagers aged 15 through 17 years)
- \*HSI 5A and 5B (The rate per 1,000 women aged 15 through 19 years and 20 through 44 years with a reported case of Chlamydia)

This priority is related to the four levels of service according to the MCAH pyramid.

Priority 8: Increase the number of empowered CSHCN families by promoting family competency to identify and manage their child needs through family-centered care.

\*NPM 3 (The percentage of CSHCN that receive comprehensive, coordinated, and family-centered services through medical homes)

This priority is related to direct health care services and infrastructure-building services. /2012/ This priority was rephrased: Increase the number of empowered CSHCN families by promoting family-centered care.//2012//

Priority 9: Increase the number of CSHCN that receive coordinated care services.

\*NPM 3 (The percentage of CSHCN that receive comprehensive, coordinated, and family-centered services through medical homes)

This priority is related to direct health care services and infrastructure-building services of the pyramid.

/2012/ This priority was rephrased: Increase the number of CSHCN that receive coordinated care.//2012//

Priority 10: Increase the number of YSHCN that are well oriented for their transition to adult life. \*NPM 6 (The percentage of YSHCN who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence) This priority is related to enabling services.

/2012/ This priority was rephrased: Increase the number of YSHCN that are oriented for their transition to adult life.//2012//

An attachment is included in this section. IVB - State Priorities

## **C. National Performance Measures**

**Performance Measure 01:** The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs.

## Tracking Performance Measures

	_		
[Secs 485	(2)(2)(B)(iii	) and 486	(a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance	100	100	100	100	99.5
Objective					
Annual Indicator	100.0	100.0	100.0	100.0	100.0
Numerator	28	18	26	28	27
Denominator	28	18	26	28	27
Data Source		PR	PR Newborn	PR	PR
		Newborn	Screening	Newborn	Newborn
		Screening	Progr.	Screening	Screening
		Prog.			
Check this box if you cannot					
report the numerator					
because					
1.There are fewer than 5					
events over the last year,					
and					
2.The average number of					
events over the last 3 years					

is fewer than 5 and therefore					
a 3-year moving average					
cannot be applied.					
Is the Data Provisional or				Provisional	Provisional
Final?					
	2012	2013	2014	2015	2016
Annual Performance	100	100	100	100	100
Objective					

#### Notes - 2011

FY 2010-2011 data provided by the PR Hereditary Diseases and Newborn Screening Program.

The annual performance objectives for 2012-2016 were revised.

#### Notes - 2010

FY 2009-2010 data provided by the PR Hereditary Disease and Newborn Screening Program.

#### Notes - 2009

FY 2008-2009 data provided by the PR Newborn Screening Program.

### a. Last Year's Accomplishments

Law No. 84, 1987, mandates universal newborn screening for all live infants born in PR. Currently; the Newborn Screening Program (NSP) screens all newborns for PKU, Congenital Adrenal Hyperplasia, Galactosemia, Hypothyroidism, Sickle Cell Anemia and other Hemoglobinopathies.

The NSP expanded its laboratory capacity by adding an additional Tandem Mass Spectrophotometer (MS/MS). Both instruments were used at full capacity to evaluate 100% of the samples collected.

Form 6 summarizes the newborn screening activity and its results during fiscal year 2010-2011. During this period, the NSP served 41,324 out of the 41,345 registered live births. This figure represents 99.9% of all live births during the reporting year. Puerto Rico currently has 40 facilities that report more than 10 live births per year. The NSP Laboratory has been receiving and processing samples from 40 birthing hospitals.

During 2010-11, the NSP performed confirmatory tests on all cases with abnormal screening results. A total of 47,300 tests were conducted using the MS/MS. Six thousand of them were for confirmatory purposes. Twenty-seven (27) cases were diagnosed with a congenital disease. The program identified: PKU-3 cases; hypothyroidism-11 cases; galactosemia- 1 case, hemoglobinopathies-5 cases and 4 cases of congenital adrenal hyperplasia. In addition, two new cases with aminoacidopathies and one case with organic acidemia were identified. These cases were diagnosed with Maple Syrup Urine Disease, Critulinemia and HMG (3-Hydroxy-3 Methylglutaryl-CoA Lyase Deficiency). The NSP has begun to test for Hermansky Pudlak Type 1 and 3 and con Severe Combined Immunodeficiency. During this past year they were able to identify 9 new cases of Hermansky Pudlak, one case each of T cell Lymphopenia and Di George.

All (100%) children with a positive confirmatory test received counseling and follow up treatment. In addition, the NSP made sure parents of children with a confirmed condition received genetic counseling and their children the specialized medical treatment and nutritional follow up they need. Patients that required, either an evaluation by an endocrinologist, attendance to a metabolic clinic or WIC Program services received the appropriate referral. The WIC Program provided those under 5 years of age the specialized formulas recommended.

A total of 996 newborns with abnormal hemoglobin traits were detected. Among them, 5 had

sickle cell anemia. Five hundred twenty six (526) families of neonates with abnormal traits were evaluated in the clinics. Both the children and their parents were tested to detect abnormal hemoglobins. Those with abnormal results received genetic counseling, and referral for treatment. In addition 96 pregnant women were also tested for the presence of a hemoglobinopathy.

Home Visiting Nurses provide postpartum education and disseminate educational materials regarding the importance of newborn screening for the early detection and treatment of congenital metabolic disorders. In addition Title V staff are capable of providing key follow up activities in those cases where NSP is unable to locate the families of infants who screened positive. They visit their homes and if necessary summon the help of the Department of the Family or the Police, in an effort to locate them and have them retested.

During CY 2011, the Home Visiting Program served 4,931 families of pregnant women and children under 2 years of age. Orientations' regarding the importance of newborn screening for congenital diseases is a topic they regularly include during their interventions with HVP pregnant women. In addition other MCH staff were able to reach 203 persons and provided them with information regarding the importance of newborn and hearing screening.

Beginning in 2009, the NSP statistical data is being published in the Birth Defects Surveillance and Prevention System (BDSS) Annual Report. It includes incidence data and its trends beginning at the time screening for that specific condition was formally initiated.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyram	id Leve	l of Serv	/ice
	DHC	ES	PBS	IB
1. Link infants with genetic and metabolic disorders with		Х		
nutritional and specialized medical care. Refer children with				
congenital conditions that require nutritional education and				
management such as PKU and galactosemia to the WIC				
Program.				
2. Provide prenatal counseling to all HVP participants regarding			Х	
the importance of newborn screening.				
3. Provide genetic counseling to families of newborns with	Х			
genetic or metabolic conditions.				
4. Educate postpartum women on the importance of asking for			Х	
newborn screening results during the first visit to their				
pediatrician.				
5. Disseminate educational materials regarding the importance			Х	
of having newborns whose screening is positive receive a				
confirmatory test and treatment if diagnosis is confirmed.				
6. Provide perinatal education to providers regarding the				Х
importance of the newborn screens.				
7. Evaluate the possibility of linking newborn screening data				Х
base with Universal Hearing Screening, Birth Defects				
Surveillance and Prevention and VS data systems to allow for				
timely follow up of all identified cases.				
8. Publish and distribute statistical data.				Х
9. Update the electronic data management system.				Х
10. Increase lab capacity.				Х

#### b. Current Activities

The NSP continues to work to ensure all newborns in PR are tested, abnormal tests are confirmed and those with a confirmed condition received adequate follow up and treatment. The lab continues to operate two MS/MS machine and screen 100% of the samples for additional congenital metabolic conditions. In addition, the lab equipment has been updated and now they are in the process of transitioning to the use of fluorescent technology to conduct testing for hypothyroidism, galactosemia and Cystic Fibrosis. The program is involved in a national pilot project to detect Severe Combined Inmunodeficiency. It is also continuing its pilot project for the early identification of the Hermansky Pudlack Type 3 Syndrome since PR has a high prevalence of this condition.

During the second semester of 2011, the NSP identified 8 new cases of newborns with metabolic disorders; 4 were confirmed cases of congenital hypothyroidism, 1 PKU, 1 Galactosemia, In addition they have identified 3 newborns with Sickle cell Disease, one with an Aminoacidopathy and another child with a Fatty Acid Disorders. Also, the NSP staff has offered 20 genetic counseling sessions to parents of children who have been found to have abnormal hemoglobin traits.

The Program has increased its workforce to 19 and has updated their electronic data management system. This new system is expected to have the capability of linking to other data sources. The NSP is now an integral part of the Center for Hereditary Diseases.

#### c. Plan for the Coming Year

Law 84, 1987 includes provisions that require the Governor to appoint an Advisory Committee to the Secretary of Health to evaluate and recommend the tests required as part of the Universal Newborn Screening Program. The Committee members' appointments have expired. The NSP, MCH and the Birth Defects Surveillance and Prevention System staff submitted a list of potential candidates to the Secretary of Health and the Governor. Once members of the Advisory Committee are officially appointed they will be expected to begin monitoring the results of the MS/MS testing and after evaluating data collected, latest scientific evidence, cost effectiveness of the test and the availability of treatment for the conditions identified by the MS/MS, they will provide recommendations on which tests should be officially included as part of the mandatory Universal Newborn Screening Program.

The NSP will continue testing for Cystic Fibrosis. The NSP plans to begin testing for Biotinidase deficiency in the near future.

Efforts will continue to link data of the Universal Newborn Screening Program with data from the Universal Newborn Hearing Screening, Birth Defects Surveillance and Prevention System and Birth Records. Linking them will be facilitated by the fact that all their data is collected around the time of birth and are mandated by law. The UNHSP has already established an electronic system to gather information on all live births in key birthing hospitals. It includes fields where data related to follow up activities and tracking of suspected cases can be entered. This data collection system could serve as the infrastructure upon which additional information from the other programs can be added. Linking all these databases and program efforts will help us ensure participants in these programs are not lost to follow up and receive timely confirmatory tests and treatments. It will allow us to detect infants who may have received one of the required screenings but not the other. In addition, it will reduce data entry time, the need for additional equipment and technical support. It should also help with quality assurance, documentation of appropriate follow up of infants with positive screening tests, and timely treatment of confirmed cases.

The MCAH Program expects to have one perinatal nurse per region during the coming year. Already four have been reinstated to their previous positions. They will be responsible for visiting birthing hospitals, educating post partum women on the importance of newborn hearing and

metabolic screening and providing follow up to those infants that screen positive and are lost to follow up by the NSP.

## Form 6, Number and Percentage of Newborns and Others Screened, Cases Confirmed, and Treated

The newborn screening data reported on Form 6 is provided to assist the reviewer analyze NPM01.

Total Births by Occurrence:	41345							
Reporting Year: Type of	2011 (A)		(B)	(C)	(D)	-12		
Screening Tests:	at least one Screen (1)		at least one		No. of Presumptive Positive Screens	No. Confirmed Cases (2)	Treathat Record Treat(3)	eived itment
	No.	%	No.	No.	No.	%		
Phenylketonuria (Classical)	41324	99.9	854	3	3	100.0		
Congenital Hypothyroidism (Classical)	41324	99.9	2695	11	11	100.0		
Galactosemia (Classical)	41324	99.9	705	1	1	100.0		
Sickle Cell Disease	41324	99.9	996	5	5	100.0		
Maple Syrup Urine Disease	41324	99.9	796	1	1	100.0		
Citrullinemia	41324	99.9	796	1	1	100.0		
21-Hydroxylase Deficient Congenital Adrenal Hyperplasia	41324	99.9	1709	4	4	100.0		
3-Hydroxy 3- Methyl Glutaric Aciduria	41324	99.9	1085	1	1	100.0		

**Performance Measure 02:** The percent of children with special health care needs age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive. (CSHCN survey)

## Tracking Performance Measures

Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	51	54	57	38.7	37.6
Annual Indicator	44.8	44.8	37.4	37.4	37.4
Numerator	162	162	63011	63011	63011
Denominator	362	362	168665	168665	168665

Data Source		2005	PR Survey	PR Survey	PR Survey
		Family	of CSHCN	of CSHCN	of CSHCN
		Survey			
Check this box if you cannot report					
the numerator because					
1.There are fewer than 5 events over					
the last year, and					
2.The average number of events over					
the last 3 years is fewer than 5 and					
therefore a 3-year moving average					
cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	37.8	38	38.3	38.5	38.5

#### Notes - 2011

See notes for 2010.

#### Notes - 2010

Indicator data came from the PR Survey of CSHCN, conducted by the PR Department of Health for the first time in year 2009. The indicator and annual performance objective were revised and corrected for year 2009. The annual performance objectives were calculated using the 3% improvement target setting method. This target setting method is similar to the one used by Healthy People 2020 in establishing 10-year targets but adjusted to calculate 5-year targets. This target setting method was chosen because there were no previous population survey data available to establish trends and/or projections.

#### Notes - 2009

Indicator data comes from the Puerto Rico Survey of CSHCN conducted by the PR Department of Health, 2008-2009.

Numerator and denominator are weighted estimates.

#### a. Last Year's Accomplishments

The 2009 PR-CSHCN Survey revealed that 37.4% of CSHCN families' partner in decision-making at all levels and are satisfied with the services they receive. According to recommendations from the CSHCN Committee, activities were developed focused on providing information to families about child's development, resources available in the community, medical home, Title V and services provided by APNI (Association of Parents of Disabled Children).

The Family Representative prepared packets with key informational material for families with children with special needs. The packets included a community services directory, a map with health regions, brochures about medical home, Title V, and APNI and information on developmental milestones. There are 29 hospitals in Puerto Rico with NICUs. Packets were distributed to three NICU's, SER of PR and to a pediatrician and a pneumologist in San Juan.

The feasibility study of Pediatric Centers (PC) was completed on June 2011. This study was discussed during the 2011 annual review meeting. An executive summary was prepared and submitted as requested. The specific objectives of the Feasibility Study were: 1) To determine the availability and accessibility of medical subspecialists and allied health professionals that serve CSHCN at regional level; 2) To determine the need and demand for services of CSHCN and families; 3) To obtain knowledge about the operational or actual Program context; and 4) To evaluate the CSHCN Program.

According to the 2009 CSHCN Survey, 16.6% of children less than 18 years of age, or approximately 180,889 children, have special health care needs. The most common health

needs were prescription medications (83%), preventive dental care (82%) and routine preventive medical services (76%). Over half of CSHCN need the care of medical specialists (66%), and PT/OT/ST (52%). Other services needed by children included mental health services (43%), eyeglasses or vision care (28%), dental care other than preventive care (20%), and genetic and metabolic diagnostic tests (18%).

An analysis of the geographical distribution of community specialists and allied health professionals revealed that most subspecialist practices are located in the Metropolitan Region, Bayamón and Caguas. This distribution does not necessarily correspond to that of greater demand among families. Most of these practices do not accept the government insurance plan "Mi Salud" although the majority of families have it as their only health insurance plan. Allied health professions are more accessible since more than half of these practices accept "Mi Salud".

According to PC medical directors, administrators and providers, PC capacity to serve children with disabilities has been affected due to the reduction in specialists and related health providers associated to changes in the health services delivery model and more recently to the government fiscal crisis. PC does not participate in "Mi Salud". PC staff considered the reduction in federal and state funds and the increase in the CSHCN Program payroll as determinant factors in the reduction in the number of children served. As a consequence of the reduction of subspecialists, reimbursement funds have diminished affecting Program sustainability.

Based on their experiences, families' recommendations addressed the need to increase subspecialists' services at the PC islandwide, expansion of allied health services and enhancement of PC infrastructure and equipment. In spite of the challenges faced by PC, families expressed to be satisfied with services, to have received quality health and support services, care coordination, orientation and guidance in the same location in their communities, not found in the primary physician's office. These are all elements of the medical home service delivery model promoted by Title V.

A literature review was done on Family-to-Family Networks available in other states to study the possibility of developing a family network in PR. The purpose was to provide families with information on services available at the community and foster families' linkage.

Families have expressed the need for counseling on how to cope with the impact of having a special child. The CSHCN Section searched information about this topic and made a compilation of materials to be distributed to families.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service			/ice
	DHC	ES	PBS	IB
The PC feasibility study was completed.				Х
2. Information packets with key informational material was			X	
distributed for mothers at NICU's, medical offices, and a				
community service organization.				
3. The Community Service Directory was updated.				Χ
4.				
5.				
6.				
7.				
8.				
9.				
10.				

#### **b.** Current Activities

According to the PC feasibility survey, 98% of families were satisfied or very satisfied with the CSHCN Program. Conversations are underway with ASES, the Sub-Secretary of Health, Triple-S and MCH/CSHCN Program to include the PC in the IPAs' preferred networks of "Mi Salud".

A literature review on medical home and health care transition was completed and the brochures were updated. Information obtained from the 2012 AMCHP conference was also useful. The Directory of Community Services is being updated.

Informational packets continue to be distributed to CSHCN families, community-based organizations, PC and medical offices. The packets now include information on the impact of having a special child.

Families are participating in three MCH regional board meetings. These boards are composed of groups of professionals and agency representatives that serve the MCH population. Needs and concerns are discussed and strategies identified to address those needs.

The CSHCN Family Representative assists to the monthly meetings of the Special Education Consulting Committee and the Medical Home Committee of the ECCS-UNT Program.

The Program collaborated with the ECCS coordinator in revising and submitting the Help Me Grow proposal to develop a central telephone information line (211) for families through United Ways.

#### c. Plan for the Coming Year

Conversations with ASES, the Sub-Secretary of Health and Triple-S will continue to include the PC in the IPAs' preferred networks of "Mi Salud" in order to increase service accessibility and reimbursement.

Activities to empower families will continue. Informational packets will be distributed to NICU's in the Metro area and regular nurseries in coordination with the Early Hearing Screening Program and the Birth Defects Surveillance System. They will also be distributed to families that receive services at the Pediatric Centers. Educational materials will be distributed at the Centers for Information on Early Childhood (developed by the ECCS Program) located on municipalities' public libraries. Materials will also be distributed at health fairs and other activities where families attend.

The Program will develop a seminar for families about Title V, family-centered care, rights and responsibilities, legislation, community services and medical home. Written materials will be updated. The family representative will offer the seminar to families at PC and community service organizations. Pre and post tests will be administered to measure increase in knowledge and to identify areas to improve. An evaluation form will also be distributed. The seminar will also serve to gather information on families' needs and concerns useful for future planning.

The CSHCN Section will identify strategies to develop networking links with parents, parents' support groups and stakeholders at the community level. The main purpose is to educate and empower families in family centered care, rights, and available services at the community.

The Program will be initiating the planning phase of the second representative survey of CSHCN to provide data for NPMs 2-6 and for planning purposes. The first steps include the identification of funds for the study and development of a study plan/protocol.

**Performance Measure 03:** The percent of children with special health care needs age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home. (CSHCN Survey)

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	45	46	48	24.7	22.6
Annual Indicator	38.7	38.7	22.4	22.4	22.4
Numerator	127	127	29640	29640	29640
Denominator	328	328	132545	132545	132545
Data Source		2005 Family Survey	PR Survey of CSHCN	PR Survey of CSHCN	PR Survey of CSHCN
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	22.8	23	23.3	23.5	23.5

#### Notes - 2011

See notes for 2010.

#### Notes - 2010

Indicator data came from the PR Survey of CSHCN, conducted by the PR Department of Health for the first time in year 2009. The indicator and annual performance objective were revised and corrected for year 2009. The objectives were calculated using the 5% improvement target setting method. This target setting method is similar to the one used by Healthy People 2020 in establishing 10-year targets but adjusted to calculate 5-year targets (using 5% improvement instead of 10% improvement method). This target setting method was chosen because there were no previous population survey data available to establish trends and/or projections.

#### Notes - 2009

Indicator data comes from the Puerto Rico Survey of CSHCN conducted by the PR Department of Health, 2008-2009.

Numerator and denominator are weighted estimates.

#### a. Last Year's Accomplishments

According to the PR Survey of CSHCN, only 22.4% of CSHCN have medical homes, 32.2% had effective care coordination and 66.9% of families had family-centered care. Strategies to address this PM focused on disseminating information on medical home to families and developing seminars for medical students on family-centered care, care coordination, sensibility and transition to adult life.

The CSHCN Committee met on December 2010 and included representatives from agencies, community-based organizations and a mother with a child with special needs invited to share her experiences navigating the system of services. Many issues were discussed during this meeting including this mother's experiences and service barriers at the Department of Education, Department of Health and the community. Members talked about the need to know each other

and to work together toward this population. New ideas emerged regarding the development of a centralized family interactive web page with links to agencies, organizations and community resources. This information is useful for the development of a family network webpage or blogspot.

The Family Representative prepared packets with key informational material for families with children with special needs. The packets included a community services directory, a map with health regions, brochures about medical home, Title V, and APNI and information on developmental milestones.

The feasibility study of Pediatric Centers (PC) was completed on June 2011. This study was discussed during the 2011 annual review meeting. An executive summary was prepared and submitted as requested. According to the PC family survey, ninety-six percent (96%) of families indicated that always or usually PC staff responded to family calls; 84% indicated that they have been referred to community subspecialists if services were not available at the seven PC; 98% indicated that the PC environment was supportive and that doctors and personnel carefully listened to families' needs.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Program collaborated with the ECCS Program to develop the Connecticut Help Me Grow Request for Proposal for a central information telephone line for families.				Х
2. The CSHCN Committee met to discuss current families' issues and the need to develop a mechanism to share information among families.				Х
3. The PC feasibility study was completed and an Executive Summary was prepared.				Х
4. The Family Representative distributed educational packets for families in NICUs.				Х
5.				
6.				
7.				
8.				
9.				
10.				

#### **b.** Current Activities

The CSHCN in collaboration with ECCS submitted a proposal for technical assistance from the Connecticut Help Me Grow Project to develop a centralized information telephone line for families through United Ways. Although PR was not selected for funding, the Project is offering TA and support to achieve our goals.

A literature review on medical home, care coordination and family-centered care was completed and was used in the revision and update of the medical home brochure for CYSHCN families. This brochure is part of an informational packet that is distributed to families in NICUs, Pediatric Centers, service organizations and medical offices.

The Service Directory is being updated. The Service Directory is a valued resource of information on available community-based services for CYSHCN and their families.

A seminar is being developed about medical home and other related topics for medical students.

Pre and post tests will be offered to measure change in knowledge and to identify topics to reinforce. An evaluation form will also be distributed to identify areas for improvement.

The CSHCN Section is participating in the Medical Home Committee of the ECCS "Unidos por la Niñez Temprana" Program as a strategy to increase the number of CSHCN served at pediatric practices transformed into medical homes.

The MCH/CSHCN Programs are meeting with ASES, Triple-S and the Sub-Secretary of Health to discuss the possibility to include the PC in the IPAs' preferred networks of "Mi Salud".

#### c. Plan for the Coming Year

Activities targeting the need to inform medical students and health professionals about family and patient centered, coordinated, and sensible health care will continue. The Family Representative will take an active part in these activities.

Educational materials about medical home will be distributed among pediatricians and allied health professionals at annual meetings/conventions and among CYSHCN families at health fairs and activities.

The CSHCN Program will request a meeting with ASES past to identify and discuss new strategies to promote medical homes in PR.

The CSHCN Section will continue participating in the Medical Home Committee of the ECCS "Unidos por la Niñez Temprana" Program.

The Program will meet with the PR Primary Care Association, Inc. (ASPPR) to discuss strategies to promote the medical home for CYSHCN in collaboration with the 330 Centers - Federally Qualified Health Centers (FQHC).

The Program will be in the initial planning phase of the second representative survey of CSHCN to provide data for this performance measure and for planning purposes. The first steps include the identification of funds for the study and development of a study protocol.

**Performance Measure 04:** The percent of children with special health care needs age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need. (CSHCN Survey)

#### **Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance	2007	2008	2009	2010	2011
Data					
Annual Performance Objective	20	21	22	40.8	37.9
Annual Indicator	17.0	17.0	37.7	37.7	37.7
Numerator	53	53	41239	41239	41239
Denominator	311	311	109335	109335	109335
Data Source		2005 Family Survey	PR Survey of CSHCN	PR Survey of CSHCN	PR Survey of CSHCN
Check this box if you cannot report the numerator because 1.There are fewer than 5 events over the last year, and					

2.The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	38.2	38.4	38.6	38.8	38.8

#### Notes - 2011

See notes for 2010.

#### Notes - 2010

Indicator data came from the PR Survey of CSHCN, conducted by the PR Department of Health for the first time in year 2009. The indicator and objective were revised and corrected for year 2009. The objectives were calculated using the 3% improvement target setting method. This target setting method is similar to the one used by Healthy People 2020 in establishing 10-year targets but adjusted to calculate 5-year targets (using 3% improvement instead of 10% improvement method). This target setting method was chosen because there were no previous population survey data available to establish trends and/or projections.

#### Notes - 2009

Indicator data comes from the Puerto Rico Survey of CSHCN conducted by the PR Department of Health, 2008-2009.

Numerator and denominator are weighted estimates.

#### a. Last Year's Accomplishments

Results of the Title V needs assessment revealed the need to improve health insurance processes, access to referrals, and coverage of specific services for CSHCN. According to the first CSHCN Study, 53.8% of families reported to have the Government Insurance Plan (GIP).

A health care reform was implemented in PR in October 2010. The new government insurance plan was called "Mi Salud" and the economic risk is of ASES instead of the health insurance companies. "Mi Salud" was expected to alleviate some of the health system previous issues such as the difficulty to obtain referrals and the difficulty of the processes. "Mi Salud" has a special coverage packet for children diagnosed with autism.

According to the 2009 PR Survey of CSHCN, 37.7% of CSHCN had an adequate health insurance that covers the services they need. Seventy-two percent (72%) of families had a child's insurance plan that usually or always met the child's needs; 50.2% reported that charges not covered by health insurance were usually or always reasonable; and 72.2% reported that the plan usually or always allowed child to see needed providers. Approximately 7.4% of children had a time during the past year when they were not covered by any health insurance.

The Feasibility Study of PC was completed on June 2011. It included information from primary and secondary data sources such as the first representative study of CSHCN, a telephone survey of specialists, interviews and focus groups with personnel at the PC. The study was discussed at the 2011 annual review meeting and a report and an executive summary were prepared and submitted to MCHB.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB

1. The PC feasibility study was completed and a report and an executive summary were prepared and submitted to MCHB.		Х
2. The results of the feasibility study were discussed during the		Х
2011 Annual Review Meeting.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

#### b. Current Activities

The CSHCN Section requested information on the "Mi Salud" special coverage to the two health insurance companies participating in the health care reform. According to the information received from Triple S, CSHCN need to be registered in the special needs coverage in order to receive specialist services without primary doctor referrals. The primary doctor needs to submit evidence of the condition(s) according to a diagnosis list, labs, and pharmacological treatment to the health insurance company. Services are provided until age 21. Children that do not qualify for the special coverage receive case management services.

The information is being used to revise and update the special coverage brochure for CYSHCN families. The brochure explains who CSHCN are, the procedure to request special coverage, complaints procedures, and telephone numbers of ASES, the Health Ombudsman, health insurance companies and PRDOH.

It is important to mention that according to the 2011 Feasibility Study, the majority of specialists that provide services to this population do not serve "Mi Salud" enrollees. Pediatric Centers serve as a safety net for patients that otherwise could not obtain the services. PCs are not included in the IPAs' preferred networks. Meetings with ASES, health insurance companies and the Sub-Secretary of Health are underway to include PC in the IPAs' preferred networks facilitating access to multidisciplinary services.

#### c. Plan for the Coming Year

It is necessary that Title V and the CSHCN Program work in collaboration with ASES to assure adequacy of health insurance for CSHCN. The Program will continue working on the update of the "Mi Salud" special coverage brochure and distributing it among CSHCN families at health fairs, community-based organizations and Pediatric Centers.

Meetings will continue with ASES and health insurance companies under "Mi Salud" to include the Pediatric Centers in the IPAs' preferred networks.

The Program will be in the initial planning phase of the second representative survey of CSHCN to provide data for NPMs 2-6 and for planning purposes. The first steps include the identification of funds for the study and development of a study protocol.

**Performance Measure 05:** Percent of children with special health care needs age 0 to 18 whose families report the community-based service systems are organized so they can use them easily. (CSHCN Survey)

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance  Data	2007	2008	2009	2010	2011
Annual Performance Objective	73	75	76	81.8	82.6
Annual Indicator	68.0	68.0	81.8	81.8	81.8
Numerator	246	246	142648	142648	142648
Denominator	362	362	174345	174345	174345
Data Source		2005 Family Survey	PR Survey of CSHCN	PR Survey of CSHCN	PR Survey of CSHCN
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	83.4	84.2	85	85.8	85.8

#### Notes - 2011

See notes for 2010.

#### Notes - 2010

Indicator data came from the PR Survey of CSHCN, conducted by the PR Department of Health for the first time in year 2009. The objective was revised and corrected for year 2009. The objectives were calculated using the 5% improvement target setting method. This target setting method is similar to the one used by Healthy People 2020 in establishing 10-year targets but adjusted to calculate 5-year targets (using 5% improvement instead of 10% improvement method). This target setting method was chosen because there were no previous population survey data available to establish trends and/or projections.

#### Notes - 2009

Indicator data comes from the Puerto Rico Survey of CSHCN conducted by the PR Department of Health, 2008-2009.

Numerator and denominator are weighted estimates.

#### a. Last Year's Accomplishments

The CSHCN Program Family Representative prepared and distributed packets with key informational material for mothers at NICU's. The packets included the updated Service Directory. The purpose of these packets was to provide valuable information to families that can help them in locating services for their babies once they get out of the hospital.

According to the 2009 PR Survey of CSHCN eighteen percent (18.2%) of parents reported difficulties to access community services. Most common reported difficulties were: long waiting lists (74%), not obtaining the services when the child needed them (70%), problems in the communication between service providers (60.8%), not getting needed information (59.3%) and not having enough money to pay for out of coverage services (46.9%).

According to the PC Feasibility Study most subspecialist practices are located in the Metropolitan Region, Bayamón and Caguas. This distribution does not necessarily correspond to that of greater demand among families. More than half of these practices (54%) do not accept the

government insurance plan "Mi Salud" although the majority of families have it as their only health insurance plan. Allied health professions are more accessible since more than half of these practices accept "Mi Salud".

The CSHCN Committee met on December 2010 and included representatives from agencies, community-based organizations and a mother with a child with special needs. Many issues were discussed during this meeting including this mother's experiences and service barriers at the Department of Education, Department of Health and the community in general. Members talked about the need to know each other and to work together toward this population. New ideas emerged regarding the development of a centralized family interactive web page with links to agencies, organizations and community resources. This information is useful for the development of a family network webpage or blogspot to share information among families.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service				
	DHC	ES	PBS	IB	
A packet with informational material was distributed by the			Х		
family representative for mothers at NICU's.					
2. The Service Directory was included in the information packets				Х	
for families.					
3. The PC Feasibility Study was completed and discussed at the				Х	
2011 Annual Review Meeting.					
4. The CSHCN Committee met to identify strategies to connect				Х	
families and to promote family communication, support and					
sharing of information.					
5.					
6.					
7.					
8.					
9.					
10.					

#### b. Current Activities

According to the 2011 survey of families as part of the PC Feasibility Study, 83.7% of families indicated that their children always or usually are referred to specialists in the community if not available at the PC and 79.5% indicated that they usually or always are referred to educational, social, and other services available in the community.

The Service Directory is being revised and updated. This Directory is included in the informational packets to CSHCN families. These packets include information about Title V, developmental milestones, and a map with health regions. The Directory is also distributed among families at Pediatric Centers and the Information Centers for Early Intervention of the ECCS-UNT program located in public libraries at municipalities around the Island.

Educational activities with families that receive services at the PC serve as outreach efforts to assist them in identifying community based services. These activities also serve as an opportunity to identify families' needs and difficulties trying to access community-based services.

## c. Plan for the Coming Year

The Service Directory will continue to be distributed to families, professionals, and community programs. Information packets will be distributed among families at NICUs.

Educational activities for CYSHCN families at Pediatric Centers will continue. Strategies will be identified to connect families and to provide a forum to share their experiences, needs and community resources.

**Performance Measure 06:** The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

#### **Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance Objective	14	16	18	26	24.7
Annual Indicator	9.1	9.1	24.5	24.5	24.5
Numerator	9	9	16205	16205	16205
Denominator	99	99	66144	66144	66144
Data Source		2005	PR Survey	PR Survey	PR
		Family	of CSHCNN	of CSHCNN	Survey of
		Survey			CSHCN
Check this box if you cannot report					
the numerator because					
1.There are fewer than 5 events					
over the last year, and					
2.The average number of events					
over the last 3 years is fewer than					
5 and therefore a 3-year moving					
average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	24.9	25.1	25.3	25.7	25.7

#### Notes - 2011

See notes for 2010.

#### Notes - 2010

Indicator data came from the PR Survey of CSHCN, conducted by the PR Department of Health for the first time in year 2009. The indicator and objective were revised and corrected for year 2009. The objectives were calculated using the 5% improvement target setting method. This target setting method is similar to the one used by Healthy People 2020 in establishing 10-year targets but adjusted to calculate 5-year targets (using 5% improvement instead of 10% improvement method). This target setting method was chosen because there were no previous population survey data available to establish trends and/or projections.

#### Notes - 2009

Indicator data comes from the Puerto Rico Survey of CSHCN conducted by the PR Department of Health, 2008-2009.

Numerator and denominator are weighted estimates.

#### a. Last Year's Accomplishments

According to the 2009 CSHCN survey, 24.5% of youth with special needs reported to receive the transition services. Only 8.7% of youth reported that doctors discussed insurance coverage changes once the youth attain adult age and 11.2% reported that doctors discussed the shift to

an adult health care provider.

Interviews with youth with special health care needs revealed barriers related to the transition to adulthood, specifically the GIP annual certification process, referrals, frequent changes of physicians, and long processes for the authorization of certain interventions. Other barriers were the lack of guidance from the physician regarding the transition to an adult health care physician and low expectations from school teachers regarding youth future achievements in adult life.

The CSHCN Committee integrated two YSHCN. The Committee identified the need to educate medical students and health professionals about the process of transition to adult life of YSHCN.

Literature on health care transition was reviewed to update the brochure for youth with special health care needs.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
The CSHCN Committee integrated two youth with special				Х
health care needs.				
2. Literature review on health care transition was completed to				X
update the brochure for YSHCN.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

#### **b.** Current Activities

The Program revised and updated a brochure about health care transition to be distributed to youth with special needs and their families. This brochure describes what health care transition is, important steps by age group, information resources and independent life centers contact information. The brochure was submitted for approval by the PR State Elections Commission before dissemination.

The Program is revising and updating a health care transition brochure for health care professionals. This brochure describes the role of health care professionals in this process and the core elements of transition in the pediatric health care setting.

A handbook titled "Planificando su Futuro, Transición de la Escuela al Trabajo y la Comunidad" prepared by an independent life center (MAVI), will be distributed to youth with special needs along with the brochure about health care transition.

The Program in collaboration with MAVI is planning to educate medical students on the transition process to adult health care, steps and the importance of early communication with youth and families during this process.

#### c. Plan for the Coming Year

Educational activities with medical students and health professionals will continue emphasizing their roles in the process of transition of YSHCN to adult health care. Seminars will be offered in collaboration with independent life centers.

Educational material about transition will be distributed by regional school nurses to middle-school students with special needs, their parents and teachers in the San Juan region. This material will also be distributed to youth and families at the seven Pediatric Centers around the Island.

The Program will be in the initial planning phase of the second representative survey of CSHCN to provide data for NPMs 2-6 and for planning purposes. The first steps include the identification of funds for the study and development of a study protocol.

**Performance Measure 07:** Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, and Hepatitis B.

### **Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A Annual Objective	2007	2008	2009	2010	2011
and Performance	2007	2000	2009	2010	2011
Data					
Annual Performance	95	95.5	96	96.5	55
Objective	95	90.0	30	30.5	33
Annual Indicator	91.2	91.2	55.1	55.1	84.3
	903	903	578	578	257
Numerator					
Denominator	990	990	1049	1049	305
Data Source		PR	PR	PR	PR
		Immunization	Immunization	Immunization	Immunization
		Program	Program	Program	Program
Check this box if you					
cannot report the					
numerator because					
1.There are fewer					
than 5 events over the					
last year, and					
2.The average					
number of events over					
the last 3 years is					
fewer than 5 and					
therefore a 3-year					
moving average					
cannot be applied.					
Is the Data				Provisional	Provisional
Provisional or Final?					
	2012	2013	2014	2015	2016
Annual Performance	85	85	85	85	85
Objective					

#### Notes - 2011

Data from the Immunization Program August 2011 coverage study. The methodology is different from previous reported year.

Data from the Immunization Coverage Evaluation provided by the PR Immunization Program of the Department of Health corresponding to last year. Data for 2011 is not available. The marked differenced between 2008 to 2009 and 2010 is due to the change of data source.

#### Notes - 2009

Data from the Immunization Coverage Evaluation provided by the PR Immunization Program of the Department of Health corresponding to the year 2010. This evaluation provides preliminary information of children 35 months of age. Source of informations is under revision.

### a. Last Year's Accomplishments

Law 25 of 1983 mandates children living in PR must be immunized according to the latest immunization schedule approved by the Secretary of Health in order to attend schools and universities. The Immunization Program (IP) of the PRDOH conducts periodic immunization coverage studies to monitor compliance with established national and local guidelines. The IP regularly monitors compliance with administration of individual antigens and several immunization series. For this report a full immunization schedule for children 35 months of age consists of 4 DTaP, 3 IPV, 3 HiB, 1 MMR and 3 Hepatitis B vaccines.

In 2009 the Immunization Program evaluated immunization coverage rates using this vaccine series and found only 55% of 35 month olds were up to date in their immunizations. The same study revealed coverage for individual antigens varied widely. Values ranged from 89% for 3 doses of Polio to 61% for three HIB vaccines. That same study revealed 75% of children had 4 DTaP, 86% had 1 MMR vaccine and 88% had 3 doses of Hepatitis B vaccines. The decrease in vaccine coverage found in 2009 has been explained in part by difficulties the IP staff encountered trying to document vaccine administration while at the same time conducting an aggressive campaign to vaccinate the population against the Influenza A H1N1 and by the shortage of HIB Vaccines this cohort had experienced. Additional contributing factors have been recognized by the PRDOH and the PR Pediatric Society. Some of them are: the reduced number of pediatrician that provide these service due to increased administrative burden, licensing requirements, inadequate reimbursement for these services on the part of the insurance companies, increasing number of vaccines they must have in stock and vaccine costs. To address them a Committee was convened to analyze this very complex problem and recommend solutions to eliminate or reduce these barriers. Initial efforts were directed at eliminating barriers associated with licensing requirements.

In August 2011, the IP performed a descriptive coverage study with a random and stratified sampling with 95% of participation. It reflected a significant increase in immunization coverage for the basic series. The study reflects 84.3% of 35 month olds were up to date in their immunizations. Coverage for single antigens was even higher. Among children included in the study 90% had 4 DTaP, 95% had 3 doses of Polio, 92% had 1 MMR dose, 96% had 3 Hepatitis B vaccines and 91% had 3 HIB vaccines. This increase can be explained in part by the increased supply of HIB Vaccines, efforts to improve documenting confirmatory evidence of the administration of the vaccines using multiple sources.

In addition to the series mentioned previously the current PRDOH recommends and includes in the immunization schedule the following vaccines: Influenza, Hepatitis A, Rotavirus, Pneumococcal, Varicella, Meningococcal and HPV vaccines. The immunization schedule was reviewed in March 2011 in order to comply with current CDC, ACIP and AAP Guidelines.

As part of the PR Childhood Vaccination Week celebrations 76 special immunization clinics were held and 2,612 children under the age of 18 received vaccines. In addition, during the 2011 Back to School Campaign 43 special clinics were held reaching a total 1,719 infants, children and adolescents up to 18 years of age. In addition 43, college age adolescents and young adults between the ages of 19-24 received immunizations.

The MCAH Program has always been a key collaborator with the IP. Our Home Visiting Nurses and Community Health Workers are constantly reminding participants and the community at large of the importance of adequately immunizing their children during home visits, school activities and health fairs. During CY 2011, children from the 4,998 families in the HVP were evaluated for the adequacy of their immunization status, counseled and referred for vaccination, if needed. The MCAH Program reports that 75.9% of Home Visiting Program participants had an up to date immunization record at the time they were discharged from the program. In addition, 2,497 individuals participated in 293 group meetings where they received information on the importance of children's immunizations.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service						
	DHC	ES	PBS	IB			
1. Assess and promote adequate immunization for children participating in the Home Visiting Program.		Х					
Collaborate with the Immunization Program initiatives to			X				
promote disease prevention.							
3. Identify and address system barriers which affect access to immunizations.				Х			
4. Use diverse community level interventions to disseminate the current immunization schedule.			Х				
5.							
6.							
7.							
8.							
9.							
10.							

# b. Current Activities

The IP continues with their effort to increase the VFC providers' network and the use of the Immunization Registry. The MCAH Program contributes spreading the information on the importance of keeping the immunization schedule through the HVNs and the CHWs.

Preliminary results from the study to measure immunization coverage in adolescents reveal 66% of adolescents 13-15 years of age had a completed a series of 1Td/Tdap, 4 Polio, 2 MMR and 3 HepB. This percentage decreased to 58 when one dose of varicella was added to the series. When individual vaccines were considered coverage was reported to be: 68% for 1Td/Tdap, 93% for 4 Polio, 94% for 2 MMR and 98% for 3 HepB.

The new IP schedule includes the MCV booster dose at 16 years of age and lowers the age for the MCV administration in high risk children to 9 months. It also includes an attachment that specifies administration considerations for individual vaccines.

The vaccine coverage study for 35 months old children will be repeated next August 2012.

# c. Plan for the Coming Year

In spite of significant improvements in coverage PR has not been able to reach 2006 levels despite efforts made to eliminate the barriers mentioned above. In fact new challenges have emerged such as parents reluctance to have multiple vaccines administered simultaneously, increased concern with reports of autism associated with vaccines, difficulties maintaining an

adequate stock of all the required vaccines at all times and planning and coordinating vaccine deliveries to insure ample supplies particularly during times of high demand.

Recently providing vaccines to children with ease and in a timely fashion has become increasingly difficult. Although most parents vaccinate their children to protect them children from these diseases and because they need to comply with Law 25 before they can enroll their children in educational institutions, they frequently face many barriers when attempting to do so. Among the barriers parents have encountered are: reductions in the number of special clinics being held and the number of pediatricians offering immunization services to privately insured children, local regulatory permits needed to store and administer vaccines, low reimbursement fees, multiple vaccines and high cost of these vaccines. The PR local chapter of the AAP will continue to focus their work on addressing these challenges and having pediatricians become again the main providers of these services as part of their routine health care maintenance visits. The Sub Secretary of Health will continue to lead the Committee charged with conducting an indepth analysis of the situation and submitting a strategic plan to eliminate them. A legislative proposal is under consideration to eliminate the local regulatory permit requirements for vaccines storage. If it becomes law it is expected to increase the number of pediatricians willing to vaccinate in their offices.

Until a long term solution can be identified and implemented, the PRDOH will continue to provide vaccines to the privately insured pediatric population whose pediatricians are not offering this service in the 5 Regional Immunization Clinics. Several private hospitals have also opened vaccine clinics in their facilities. The IP will continue to supply VFC providers with vaccines required in the IP schedule.

Child Immunization Week and Back to School celebrations will be discontinued due to economic constraints. HVNs and CHWs will continue to educate and promote compliance with the vaccine schedule during their home visits and in school activities. HVNs will evaluate the immunization status of their participants and refer those that need vaccination to a clinic or provider that can immunize them.

To circumvent the problem documenting vaccine administration for coverage studies a special effort will be made to increase the number of pediatricians in private practice that enter vaccination data directly into the Immunization Registry website.

**Performance Measure 08:** The rate of birth (per 1,000) for teenagers aged 15 through 17 years.

# Tracking Performance Measures [Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	34.7	33.2	31.7	32.5	30.7
Annual Indicator	36.4	34.2	33.5	32.0	30.7
Numerator	3221	3001	2936	2685	2655
Denominator	88494	87837	87665	83999	86471
Data Source		Birth Certificate OITA	Birth Certificate OITA	Birth Certificate OITA	Birth Certificate OITA
Check this box if you cannot report the numerator because 1.There are fewer than 5					

events over the last year, and 2.The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.  Is the Data Provisional or				Provisional	Provisional
Final?					
	2012	2013	2014	2015	2016
Annual Performance Objective	29.5	28.3	27.2	26.1	24.9

Updated data for 2009 and 2010.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provide by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

#### Notes - 2010

Updated data for 2008 and 2009.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provide by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

### Notes - 2009

Updated data for 2007 and 2008.

Because Vital Statistics (VS) data was not available for 2009, an estimated data was obtained through trend analysis using the last 9 years (2000-2008) and an exponential curve estimation regression model. For the methodology used, refer to the Appendix 5.

Numerator: Data for the analysis was provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: Population Estimates provide by the US Census.

# a. Last Year's Accomplishments

The 2010 preliminary rate of birth for 15 to 17 year old females in Puerto Rico registered 32.0 per 1,000 which represents a 4.5% decrease from 33.5 per 1,000 rate in 2009. There has been a constant and statistically significant rate of birth decrease since 1997 when it was the decade's highest, 59.9 per 1,000. The final report of the study "Pregnancy and Motherhood: Cultural Views of High School Teen Mothers and Pregnant Teens" in the Bayamón MCAH Region was completed and results shared with participating schools.

The Positive Youth Development (PYD) Model continues to be MCAH's main strategy to promote youth health and prevent high risk behaviors such as premature and unprotected sex which can lead to teen pregnancy and STIs. Community PYD in Naranjito developed 164 teen educational activities to promote PYD with 1,492 youngsters and 331 adults in youth servicing entities.

The Comprehensive Adolescent Health Program (CAHP) main project is the peer to peer and PYD based Youth Health Promoters Project (YHPP) in public schools and juvenile institutions. The YHPP's 333 active promoters (12-15 years old) in 25 public middle schools (7th to 9th grade) provided 98 health promotion educational activities to 2,850 students and 250 adults, totaling 3,100 participants. The activities included messages to avoid early and unprotected sexual relations that may lead to teen pregnancies and other consequences. A total of 44 YHPs graduated after three years participating in the YHPP. The CAHP's YHPP in the Administration of Juvenile Institutions (AJI) continued in the Ponce female's facility but Bayamón Males YHPP was not active. The Ponce' Girls YHPP group included fifteen (15) girls which participated in fourteen (14) workshops and meetings. They developed and presented the drama "Cosas que pasan en la vida" ("Things that happen in life") to peers which included teen pregnancy prevention (TPP) messages.

The Secretary of Health proclaimed the month of March as "The Month of Raising Awareness on the Impact of Teen Pregnancy". In an activity held in the PRDOH, 29 YHPs - under the theme "We Believe in Responsible Health, we Make the Difference" - presented a slide show and spoke about the activities they delivered to their peers in schools and communities to promote sexual health responsibility. The activity was attended by 38 adults from youth serving communities.

Efforts to increase TPP awareness included 120 educational activities about adolescence health promotion and risk prevention to 3,970 teens and 201 adults by the CAHP Regional Coordinators. The MCAH regional health promoters reported a participation of 41,307 youths (10-19 y/o) in TPP educational activities including: abstinence and contraceptive methods, self esteem, adult-youth communication, peer pressure, adolescent development and other related.

TP secondary prevention efforts include Home Visiting Nurses (HVN) and Healthy Start in MCAH and "Nido Seguro" ("Safety Nest") Project in the PR Department of Family. HVN registered 801 new teen pregnant participants (73 < 15 y/o and 728 were 15-17 y/o) and offered visits to 2,827 follow up teen participants (233 were <15 y/o, 2,594 were 15-17 y/o). To space future teen births, interconceptional care visits (post partum until baby is 24 months old) were offered to females <15 y/o (7 new participants and 182 follow up) and to 15-17 y/o (42 new and 3,502 follow up participants). A total amount of 389 teens participated in the "Nido Seguro" Initiative.

The PR Abstinence Education (AE) Plan was approved by ACYF. PRDOH sub awarded United Way (UW) of PR as implementation partner and Center for Evaluation and Sociomedical Investigation (CIES) of the University of PR Medical Sciences Campus as evaluation partner for the selected EB Parenting Education Program (PEP) from Community Counseling Centers of Chicago (C4) used with Latino parents and already translated into Spanish ("Fundamentos de la Crianza"). PEP strategies are targeted to improve communication skills and problem-solving techniques in families to promote a healthy development in early adolescents. PEP training was offered to 32 facilitators and 9 supervisors for its implementation with parents of 7 to 12 y/o in the selected municipalities. An intense summer recruitment effort resulted in 516 parents or caretakers successfully finishing the program. The CIES offered technical assistance to CBOs and performed the AE evaluation.

**Table 4a, National Performance Measures Summary Sheet** 

Activities	Pyramid Level of Service			/ice
	DHC	ES	PBS	IB
Coordinate educational and PYD activities in schools and communities to promote healthy behaviors and prevent teen pregnancies.			X	
2. Continue the CAHP's Youth Health Promoters Project (YHPP) in public middle schools and in juvenile centers of the Administration of Juvenile Institutions (AJI).			X	

3. Facilitate the development of culturally appropriate educational materials, presentations, workshops and PYD activities to promote healthy behaviors and prevent teen pregnancies.		X	
4. Increase awareness on issues related to teen pregnancy and teen pregnancy prevention among youths, health professionals and general public.		Х	
5. Disseminate the results of the study "Pregnancy and Motherhood: Cultural Perspectives of High School Teen Mothers and Pregnant Teens in the Bayamón Health Region".		Х	
6. Continue Home Visiting Program and "Nido Seguro" Program with pregnant teens and interconceptional care services to space future teen births.	Х		
7. Continue AEP parent education program (PEP/CRIANZA) implementation with parents of 7-12 y/o in the selected municipalities.		Х	
8. Train CBOs facilitators and supervisors to implement EB AEP selected Adult Identity Mentoring (AIM) Program with 10-12 youths in selected municipalities.			Х
9. Pilot AIM Program with youths in selected municipalities.		X	
10. Evaluate AEP PEP/CRIANZA implementation with parents and AIM implementation with youths.			Х

#### b. Current Activities

PYD continues to be TPP strategy. "Understanding Adolescence" and PYD workshops were offered to adults by CAHP. PRDOH TPP month activity had two (2) Loíza town 9th graders presenting their research on TP in their hometown to professionals and the press. Another 31 students exposed their research projects on social issues affecting teens in their town and their transformation with this PYD project. They were invited to be part of PRDOH 1st Youth Advisory Committee to MCAH and CAHP. The YHPP continues in middle public schools and the Ponce girls Institution. PYD in Community continues in Naranjito town.

TVMEU is developing a guidance document with alternative TPP tools directed to adults working with teens based on the research findings of "Pregnancy and Motherhood: Cultural Views of High School Teen Mothers and Pregnant Teens in Bayamón Health Region" study.

UW and CIES were sub awarded again as implementation and evaluation partners for AE's 2nd year Plan. The PEP continues and Adult Identity Mentoring (AIM) Spanish Language EB Program was selected for the 10-12 year old intervention in the selected municipalities. AIM Train the Facilitators was offered to CBOs facilitators and supervisors which started the AIM pilots.

The Personal Responsibility Program (PREP) Plan was approved by ACYF and hiring of PRDOH Coordinator and the implementation and evaluator partners are underway.

# c. Plan for the Coming Year

MCAH Program will continue gathering information from Vital Statistics to update trends in teen birth rates by age groups for each municipality and other indicators related (low birth weight, prematurity, Cesarean sections, etc). This information will be used by CAHP in educational presentations and collaborative efforts with government agencies and youth serving entities in each PRDOH region or municipalities to address TPP specific initiatives. Data will continue to be shared with students, professionals and general public.

CAHP will continue providing "Understanding Adolescence" and PYD Workshops to educators,

professionals and the general public to raise awareness and sensibility towards the period of adolescence in the journey of life and to underscore the importance of PYD and connectedness with teens in family, school and community environments in order to protect them from engaging in high risk behaviors including TPP. The PYD action guide developed through "Reto y Esperanza: Healthy Puerto Rican Youth Development" Action Guide will be completed, piloted with youths and reviewed by specialized curriculum educators for its further dissemination. The 1st PRDOH Youth Advisory Committee or Council to MCAH and CAHP will be started with the participation of YHP and students from the Loíza Research Project.

The Youth Health Promoters Project YHPP implementation will continue in public middle schools by CAHP Regional Coordinators with the support of the PR Department of Education. The YHPP project in juvenile justice institutions will continue in the female center and efforts will be directed to reestablish it the Bayamón Boy's Center. The YHPP curriculum guide "Jóvenes Saludables en Acción" (Healthy Youth in Action) will be completed and reviewed by specialized curriculum educators.

MCAH Home Visiting Nurses Program, Healthy Start and the Family Department "Nido Seguro" Program will continue offering services and support to pregnant and parenting teens including interconceptional services to teen participants to space future births.

The ACYF awarded funds for AE and PREP State Programs continuation as stated in their approved Plans. Both Programs will hire PRDOH Coordinators for program monitoring as well as implementation and evaluator partners. AE will continue implementing the EB parenting CRIANZA and EB youth AIM Program by sub awarded CBOs personnel. The impact of both programs will be assessed by PRDOH and CIES evaluation partner. PREP will be training the CBOs facilitators and supervisors for the youth EB "Cuídate" and the parents EB "Cuídalos". Both programs will be piloted and evaluated for cultural adequacy. Both AE and PREP will provide EBP to youths, parents and community in a sequential and continuous way in the same selected high need municipalities as an innovative strategy for TPP and STIs prevention and responsibility towards adult life in Puerto Rico.

**Performance Measure 09:** Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

# Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual	2007	2008	2009	2010	2011
Objective and	2001	2000	2003	2010	2011
Performance					
Data					
Annual	6.5	7	7.5	8	6.6
Performance					
Objective					
Annual Indicator	5.1	7.6	6.6	4.2	6.4
Numerator	5805	8486	7152	4454	6563
Denominator	114666	111098	108269	105582	102459
Data Source		Health	Health	ASES and	Health
		Insurance	Insurance	Private	Insurance
		Commissioner	Commissioner	Health	Commissioner
		and US Census	and US Census	Insurances	and US
					Census
Check this box if					
you cannot report					
the numerator					

because 1.There are fewer than 5 events over the last year, and 2.The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	6.6	6.6	6.6	6.6	6.6

Numerator: Data regarding the grade in which children are enrolled is not available in the billing forms. The reported number is an estimation based on the information provided by the Health Insurance Commissioner (HICO) that reflects the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2011).

The annual performance objectives for 2012-2016 were revised.

Denominator: Estimated Population of children 8 and 9 years old in PR according to the US Census.

#### Notes - 2010

This data is incomplete and does not represent the insured population. Data only from ASES and 5 private major insurance companies.

Numerator: Data regarding the grade in which children are enrolled is not available in the billing forms. The reported number is an estimation based on the information provided by the PR Health Insurance Administration (ASES) and five major Private Health Insurance Companies (HUMANA, Triple S, MCS, First Medical and MAPFRE) reflects the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2010).

Denominator: Estimated Population of children 8 and 9 years old in PR according to the US Census.

### Notes - 2009

Numerator: Data regarding the grade in which children are enrolled is not available in the billing forms. The reported number is an estimation based on the information provided by the Health Insurance Commissioner (HICO) and the PR Health Insurance Administration (ASES) reflects the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2009).

Denominator: Estimated Population of children 8 and 9 years old in PR according to the US Census.

#### a. Last Year's Accomplishments

The PR Health Care Commissioner Office reported 6,563 dental sealant applications. According to this number 6.4% of insured children within the ages of 8-9 had a sealant applied to their teeth during CY 2011.

As a result of the implementation of the HCR in PR, all individuals under 200% of the poverty level qualify for a GIP that covers limited dental services. One of the services covered is the application of sealants on permanent molar teeth. Access to dental services for GIP beneficiaries does not require a referral from their PCP. A significant proportion of children with private health insurance also have access to dental care. One of the preventive measures usually included in their benefit packages are sealants for permanent molars. The new Government Insurance Plan called Mi Salud maintains these previously covered benefits and adds new benefits such as restorations of deciduous teeth, pulpotomies and crowns.

Access to dental care is a local challenge. Puerto Rico has a ratio of population-dentist of approximately 2,644 persons per dentist. Nevertheless they are not evenly distributed across the Island and this constitutes one of the main access barriers to dental care. Additional access barriers are: two municipalities without dentists, reduced number of dentists willing to treat pediatric patients and fiscal crisis that has resulted in the reduction or elimination of initiatives such as the Cantera Dental Home, the Center for Maternal and Child Oral Health Program and PRDOH Oral Health Program. The later lost its Director and only dentist and eleven dental assistants. The program had personnel in only 4 of the 7 health care regions. Only four of whom are dental assistants, the others are community outreach personnel.

A study was conducted in 2007 by the MCAH Program in conjunction with the Pediatric Dentistry and General Practice Graduate Residency Programs of the UPR Dental School to determine the prevalence of sealants among third grade students attending public and private schools in PR. It revealed the prevalence of dental sealants among third grade students in PR was 17.1%, which is less than the 29.5% reported US rate for children 6 to 11 years of age. The study also found preventive measures such as sealants were being underutilized despite wide dental health insurance coverage (94%) and that cavities were more frequent in children from low income families. Students from public schools and those holding a government sponsored health plan were less likely to have dental sealants. This study identified being less than 5 years of age at the time of the first dental evaluation and presence of sealants were protective factors for cavities, and having the last dental visit more than six months ago and going to sleep with a bottle were risk factors.

Head Start 2011 report shows that dental cavities continue to be the most prevalent health condition among their participants. Among Head Start children, 24.8% had dental cavities. This reflects a 15% increase compared with 2010.

During 2011, the Division of Oral Health Services reached a total of 14,628. They visited elementary schools, head starts and health fairs. During these interventions they provided oral health education to 2,972 students, 2,254 adolescents and 387 pregnant women. They promoted healthy oral health habits and provided information regarding the benefits of dental sealants. In addition they reminded adults that these services are covered by the GIP and that no PCP referrals are required to access them. They also distributed educational materials that promote healthy oral habits and information on the oral health services included in the GIP.

The HVNs and CHWs promote the use of oral health services available through the GIP. During FY 2010-11, MCAH staff offered 68 activities promoting oral health in the pediatric population. A total of 1,140 persons attended these sessions. Topics include good oral health practices, availability of dental services for HCR beneficiaries, cavities prevention and the benefits of dental sealants. They stress the benefits of using sealants to prevent cavity formation and promote tooth preservation and the fact these services are included in the GIP package. An additional 45 activities on the topic of oral health during pregnancy were offered. A total of 911 benefited from

them.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
Raise awareness among elementary school children and parents about the importance of protective sealants.			Х			
2. Disseminate educational materials concerning the importance of protective sealants.			Х			
3. Disseminate the results of the recently completed oral health study among health professional and school staff so they can become aware of the importance of promoting behaviors and interventions to improve oral health.				Х		
4. Disseminate the oral health prevention recommendations included in the 2008 Revised Pediatric Care Preventive Guidelines.				X		
5.						
6.						
7.						
8.						
9.						
10.						

#### b. Current Activities

The 2008 Pediatric Preventive Care Guidelines establishes dental evaluations should start at 12 month of age. The main barriers to achieving compliance with the recommended guidelines are the uneven distribution of dentists throughout the Island, the reluctance of some general dentist to treat young, difficult to handle children and accept the economic terms of the GIP.

The Pediatric Dental Residency Program continues to run the Maternal and Child Oral Health Center. It serves pregnant women and infants. Their main targets are Head Start participants and CSHCN.

The Tenth Tobacco Control Summit held in March 2012 included oral health topics. Some of them were the current status of oral health and cancer in PR, role of the dentist in promoting and preventing oral diseases, public policy as a strategy to improve oral health, water fluoridation, current community level initiatives and non traditional ways of promoting good oral health.

The PRDOH submitted a Supporting Oral Health Workforce Activities proposal to CDC to develop the infrastructure needed to enhance its ability to address oral health and access issues and to promote dental sealant applications and community-based prevention strategies such as water fluoridation.

The MCAH Program continues to promote compliance with the Pediatric Preventive Care Guidelines and use of the Caries Assessment Tool to identify high risk children and assign them a priority status for a dental evaluation and sealant application.

# c. Plan for the Coming Year

Efforts directed towards improving the oral health status of the maternal and child population will be centered on promoting healthy oral behaviors and the use of preventive interventions. Our goal will be to educate families and communities on good oral hygiene practices and to empower

them to request preventive dental procedures currently covered under the GIP.

We will collaborate with the PRDOH Oral Health Program in an effort to build the infrastructure needed to address current barriers to oral health services and in their efforts to promote public policies that have a positive impact in the population oral health such as water fluoridation, fluoride varnish applications and dental sealant applications. As soon as the Supporting Oral Health Workforce Activities proposal is approved we will assist them to successfully comply with their work plan in a timely and effective manner.

We will evaluate the feasibility of implementing strategies to increase access to preventive oral health measures in underserved communities with partners such as pediatricians, dentist with offices located in underserved communities, School of Dental Medicine and Head Start and the PRDOH Oral Health Program. Already some pediatricians have voiced their interest in starting to apply fluoride varnishes in their offices during routine health checkup visits.

We will explore the possibility of repeating the 2007 Dental Sealant Prevalence Study with the School of Dentistry Pediatric Dentistry and GPR Residencies in the near future. We will regularly meet with them to begin working on the logistics in order to determine if it is feasible.

Our MCH staff will work to promote messages directed at increasing the number of parents and children that adopt healthy oral habits and increasing awareness among parents that dental sealants are covered by the GIP and encouraging them to request their application when their school aged children visit the dentist. MCH staff will share this information when they participate in community and school based activities. Promoting dental sealants will be emphasized particularly among parents of low income children since they were the group less likely to have had a dental sealant application according to the 2007 study.

PRDOH Oral Health Program staff will continue their efforts to promote use of dental sealants and healthy oral health habits during their visits to schools, Head Starts and when they participate in community health fairs.

**Performance Measure 10:** The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.

# Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]		T		1	
Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance	1.7	0.9	0.9	0.8	1.5
Objective					
Annual Indicator	1.1	1.6	2.9	1.0	0.9
Numerator	9	13	22	7	7
Denominator	821286	806246	750213	729365	754103
Data Source		Death	Death	Death	Death
		Certificate	Certificate	Certificate	Certificate
		OITA	OITA	OITA	OITA
Check this box if you cannot					
report the numerator					
because					
1.There are fewer than 5					
events over the last year,					
and					
2.The average number of					

events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	0.9	0.9	0.9	0.9	0.9

Updated data for 2009 and 2010.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provided by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

The annual performance objectives for 2012-2016 were revised and adjusted.

#### Notes - 2010

Updated data for 2008 and 2009.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provide by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

# Notes - 2009

Because Vital Statistics (VS) data was not available for 2009, an estimated data was obtained through trend analysis using the last 9 years (2000-2008) and an exponential curve estimation regression model. For the methodology used, refer to the Appendix 5.

Numerator: Data for the analysis was provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: Population Estimates provide by the US Census.

#### a. Last Year's Accomplishments

Vital Statistics reports place unintentional injuries as one of the principal causes of death for children 1-14 years of age and among them motor vehicle crashes (MVC) are the most common cause of death. In 2011, the Police Department reported 7 deaths due to MVC in children less than 9 years of age represented 2.1% of the total of MVC related deaths in PR. Among the seven deaths of children under 9 years of age reported by the Police in CY 2011, 2 of them were described as pedestrians and 5 were passengers. Five of these reported dead were girls and two were boys. They also reported a total of 39 deaths among those between the ages 10-19, representing 11.4% of MVC related deaths. The 39 deaths were distributed as follows: fourteen drivers, 5 pedestrians, 11 passengers, 6 motorcycle riders, one a cyclist and 2 were not determine. Of those, 32 were males and 7 females.

Preliminary VS reports for 2010 reveal 7 deaths due to MVC among children less than 14 years of age. Among the dead, there were all males over one year of age. Three between 1 to 4 years of age; two between the ages of 5-9 and two between 10-14 years of age. One of them was riding

in a bicycle and another was a pedestrian. Circumstances for the remainder were not clearly specified. Since 2011 VS data is not available, the Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data. According to the AAPC by 2011, we expect 7 MVC related deaths in 2011.

During FY 2010-11, the Automobile Accident Compensation Administration (ACAA, spanish acronym) reported 7 deaths and 3,332 injuries related to MVC among children 0 to 14 years. Four of them were passengers and three pedestrians. They report no deaths among those in the 10-14 year age group.

The Puerto Rico Highway Safety Commission (PRHSC) recognizes that Driving While Intoxicated (DWI) is one of the main causes of fatal crashes in PR. During 2010, the NHSTA reports 97 alcohol impaired driving fatalities occurred in PR. According to their data, 29% of all MVC deaths involved a driver or motorcyclist that had a Blood Alcohol level of .08% or more. To address this, PR has passed several laws to deter DWI. Among them are: zero tolerance law for those less than 18 years of age; reduction of permissible BAC to less than .08%; mandatory jail time for a DWI drivers carrying passengers less than 15 years; vehicle confiscation and mandatory 48 hour jail time plus fines for repeat offenders; suspected DWI offenders cannot refuse a BAC sample. To enforce compliance with these laws PR participates in the National Crackdowns. This initiative has helped lower the percentage of alcohol related fatalities. These Crackdowns are accompanied by a mass media campaign that includes radio and TV spots and distribution of printed materials. The campaign targets young adults since they tend to have the highest rate of alcohol related MVC fatalities.

Another preventive measure being promoted locally to prevent MVC related deaths is the use of lap/shoulder seat belts. In 2011, the PRHSC reported all three children 4 years of age or less that perished in a MVC were not using a seat belt. Fifty-nine fire stations are listed in the PR Traffic Safety Commission website as fitting stations or sites where interested parties can go and have their car seat installation inspected for compliance with safety standards. In addition, 90 firemen serve as certified CPST are promoting their use and proper installation.

The PRHSC is by law the entity in charge of leading local efforts to reduce MVC fatalities. Their NSC certified safety coordinators offered lectures on highway safety and promoted compliance with current laws to public and private school students. In the past, the Safe Kids Coalition led local collaborative efforts to reduce MVC deaths. Nevertheless due to fiscal considerations funds previously allotted for these efforts have been discontinued.

The MCAH staff continued disseminating information directed at preventing MVC-related deaths. Staff stress the importance of correctly using the car seat as they educate mothers with young children. A total of 197 educational activities were offered by MCAH staff to promote the correct use of car seats. A total of 2,248 persons participated in them. Several agencies loan or provide free car seats if requested.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
Promote adequate use of child restraints as part of the			Х			
anticipatory guidance given at the community level.						
2. Inform families with limited resources about local programs		Х				
that rent or provide free infant car seats.						
3. Disseminate information to adolescents about MVC prevention			Х			
and alcohol use as a contributing factor in MVC fatalities.						
4.						
5.						

6.		
7.		
8.		
9.		
10.		

### **b.** Current Activities

Law 201, signed on October 11, 2011 prohibits the use of hand held cellular phones to generate, receive calls or text. It will enter into effect on January 2013. Currently the legislature is considering passing a law that would require that the Police Department train and certify the Police Transit Division in the proper installation and use of car seats and seat belts. If approved they will be able to detect poorly installed car seats and educate parents on the guidelines included in the 2011 AAP and NHSTA Revised Car Seat Recommendations for Children.

Comparing 2006 to 2010 PR has experienced a 13% reduction in the number of fatalities. This reduction is due in part to the efforts of the PRHSC. They devote their efforts towards monitoring and promoting compliance with local child restraint laws, national crackdowns and mass media campaigns directed at reducing DWI convictions and compliance with local traffic laws. Reducing the number of persons driving while under alcohol influence is expected to reduce MVC associated deaths. PR has a Zero Tolerance.

In collaboration with the EMSC Project, UPR Pediatric Residents and the Healthy Start Project held 4 Participant Meetings throughout the Island. A total of 395 personas participated in these activities. One of the main topics covered were the correct installation and proper use of car seats.

### c. Plan for the Coming Year

The MCAH Program will convene members that had participated in the SKC efforts and coordinate future collaborative efforts directed at reducing MVC fatalities using evidenced based strategies. Among those that will be invited to participate will be representatives of the Departments of Education, Police, Fire, Family Services, Emergency Medical Services for Children Program, HSC, PR Consumer Affairs Office, MADD PR chapter and ACAA. Collectively, we will continue to promote the correct and consistent use of infant safety seats in parades, special public events and while conducting car seat check points near schools and shopping malls.

MCAH personnel will continue to provide educational activities that stress the importance of correctly installing and using car seats every time children travel in a motor vehicle according to the latest AAP and NHSTA revised car seat guidelines for children and to promote compliance with local laws that require children are restrained while riding in a car, use safety approved helmets correctly when riding a bicycle, motorcycle or any other moving vehicle and those that promote drivers to abstain from drinking and driving.

The MCAH Program will support laws to increase the legal drinking age, lower legal BAC level, delay adolescents' ability to drive without supervision, establish a driver education course. In addition, we will support legislative measure PS 1954 that will require children travel in cars whose correct car seat installation has been certified by the PR Fire Department.

The PRTSC will continue to serve as the agency with the primary responsibility for managing programs designed to reduce traffic related death and injuries. They submit on an annual basis a comprehensive plan to accomplish these goals. It includes strategies such as: strengthening traffic law enforcement activities related to DWI, seatbelt use, and speeding; promoting the passage of tougher laws to deter alcohol impaired driving, national crackdowns, prevention initiatives directed at reducing alcohol consumption among youth drivers, mass media campaigns

to promote highway safety; providing EMTs with additional trainings in order to improve their skill level when managing injured persons due MVC and educating young people on how to prevent driving motor vehicles while intoxicated. Strengthening the permanent child restraint fitting stations and eliminating roadway hazards are also included as part of this plan. To continue reducing fatalities due to motorcycle associated crashes the PRHSC will continue to enforce the licensing and protective gear requirements established by law.

**Performance Measure 11:** The percent of mothers who breastfeed their infants at 6 months of age.

# Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	13	28	29	29.7	24.5
Annual Indicator	26.5	28.2	25.9	23.5	23.5
Numerator	185	248	228	231	231
Denominator	697	880	880	982	982
Data Source		ESMIPR	ESMIPR	ESMIPR	ESMIPR
Check this box if you cannot report the					
numerator because					
1. There are fewer than 5 events over the last					
year, and					
2. The average number of events over the last					
3 years is fewer than 5 and therefore a 3-year					
moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	25.2	25.9	26.8	27.6	28.3

# Notes - 2011

Data provided by the 2010 ESMIPR (PRAMS like survey) form the MCH Program, of the PR Department of Health.

### Notes - 2010

Preliminary data provided by the 2010 ESMIPR (PRAMS like survey) from the MCH Program, of the PR Department of Health.

## Notes - 2009

Preliminary data provided by the 2010 ESMIPR (PRAMS like survey) from the MCH Program, of the PR Department of Health.

# a. Last Year's Accomplishments

Raising awareness of the benefits of breastfeeding (bf) and increasing its practice among women of reproductive age (WRA) has been a major public health issue in PR for many years. The PRDOH, its Breastfeeding Promotion Committee (BPC) at the MCAH Program, and other key stakeholders have engaged in promoting this practice at all settings through different strategies, among others, a public policy by the PRDOH in 1995, the approval of laws on bf rights, and educational activities for professionals and at community level.

The MCAH Program continuously monitors bf rates in PR since 2000 using a PRAM's like, self administered biennial survey (ESMIPR, Spanish acronym) to women in their early pp period at hospital facilities, and by telephone interviews at 6 and 12 months after birth. In 2010, 70.0% women surveyed were bf in the early pp period, 23.5% at 6 months, and 14.5% at the baby's first year. Comparing ESMIPR results between 2002 and 2010 reveal that rates in the early pp period

increased 28.9% (2002: 54.3%; 2010: 70.0%). Also, rates rose 15.2% at 6 months (2002: 20.4%; 2010: 23.5%) and 70.6% at 1 year (2002: 8.5%; 2010: 14.5%).

Meanwhile, results from the birth certificate's question introduced in 2005 to inquire if the mother is still bf her child at the moment of registering the baby showed a 4.4% fall when comparing data from 2005 (69.9%) and 2010 (66.8%: preliminary data).

No PRHP 2020 objective for bf at 6 months has been set yet, so we are using the PRHP 2010 goal of 50% to monitor this indicator. So far, results show it has not been achieved. The other indicators studied have also failed to reach the USHP2010 goals (early pp: 75%; 6 months: 50%; 1 year: 25%) despite some progress observed in all of them. This may indicate barriers at hospital, home and community environments that require a more aggressive approach. Incidentally, PR ranked 44 among the 52 US states and territories in the CDC Maternity Practices in Infant Nutrition and Care Survey for 2009, issued in March 2011, where maternity facilities were invited to participate voluntarily.

Bf promotion at community level continued being a regular task for MCAH staff during this period. Home Visiting Nurses (HVN) offered prenatal one-to-one bf orientations to all 4,897 women participants of the HV Program. Regional staff carried out 100 prenatal courses that include the topic, reaching 2,103 pregnant women and relatives. CHWs offered 253 bf related group activities where 2,859 persons took part.

The PRDOH BPC met 6 times during which it continued to promote bf among WRA and seeking potential collaborators in PR. The document "Infant Feeding in Crisis and Emergency Situations", prepared by the BPC, was approved by the Secretary of Health to be included in the PRDOH Emergency Plan, to facilitate emergency response staff's intervention with women who want to breastfeed their babies during critical events. Also, the BPC sent a copy of "The Surgeon's General Call to Action to Support Breastfeeding", issued in Jan 2011, to the PR Food and Nutrition Commission to encourage the inclusion of bf issues in their work plan.

LACTA Project, an NGO member of the BPC, carried out "The Business Case for Breastfeeding", a national initiative sponsored by USDHHS and MCHB, to persuade private organizations to provide bf-friendly work settings. BPC members, MCH staff and delegates from public and private entities took part in this strategy that reached 10 companies island wide.

Also, among other activities, LACTA Project offered an 18-hour training course on bf to 60 nurses and nutritionists; an educational activity to 100 participants at the Annual Nutritionists' Convention; several workshops for 40 pediatric residents and 50 third-year medical students; and weekly bf support groups for 500 women.

Likewise, 115 bf peer counselors located at 93 WIC Program clinics across the island provided 95,916 orientations on bf aimed at pregnant, pp and bf women participants of the Program; nutritionists and other WIC personnel carried out 257 bf support groups reaching 2,649 women.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
Perform the scheduled biennial PRAM's based local survey				Х		
(ESMIPR) to observe breastfeeding trends at birth, at 6 and at						
12 months after the baby's delivery.						
2. Include the topic of breastfeeding in prenatal courses offered			Х			
to pregnant women and their families at community level across						
the island.						
3. Continue raising awareness of the benefits of breastfeeding			Х			

through group learning opportunities at community level to increase public approval of this custom.		
4. Continue empowering participants of the Home Visiting Program with relevant information regarding the benefits of	Х	
breastfeeding for them and their offspring through educational		
events and individual interventions.		
5. Implement the strategy aimed at private institutions to		X
establish breastfeeding-friendly environments within their		
workplaces in a collaborating effort with an important		
nongovernmental partner, LACTA Project.		
6. Disseminate important material on breastfeeding issues		X
among concerned stakeholders and other potential parties to		
ensure its promotion at all levels.		
7. Include a breastfeeding guide as part of the state PRDOH		X
Emergency Plan to assist emergency response staff when		
intervening with women who desire to breastfeed their babies		
during nature or other critical situations.		
8. Convene the PRDOH Breastfeeding Promotion Committee no		X
less than six times throughout the year.		
9.		
10.		

#### **b.** Current Activities

MCAH HVNs have continued providing individual orientations to participants of the program while regional MCAH staff has offered prenatal courses that include the breastfeeding topic to pregnant women and relatives as well.

The PRDOH BPC evaluated data to have a better understanding of barriers that may be impeding women to initiate and continue breastfeeding. The TVMEU of the MCAH Program provided information regarding breastfeeding practices obtained from live birth certificates for 2007. Rates were calculated by pairing maternity facility with live births occurring at the facility.

The ESMIPR was updated. Several questions on breastfeeding issues were included in the early pp survey and in the follow up at 6 and 12 months after birth, such as duration of practice; if woman discontinued it and why; and if it was exclusive or partial, among others. This will increase data available for strategic planning.

#### c. Plan for the Coming Year

MCAH Program will continue its efforts aimed at guaranteeing breastfeeding rights for women of reproductive age and increasing breastfeeding rates in Puerto Rico. Staff will continue receiving updated information regarding current policies on the subject as well as new scientific evidence. Accordingly, they will disseminate this information to interested individuals and at community level through educational activities and one to one orientations. MCAH CHWs will be particularly responsible for this task. Distribution of educational material on the subject will help in the effort of increasing awareness on the subject among the general population.

HVP participants will continue benefitting from individual interventions carried out by HVNs on relevant information and support regarding breastfeeding. The goal is to increase their knowledge and motivate them to embrace this feeding tradition at least during their infants' first six months of life and hopefully until their first birthday.

Obtaining much needed data regarding breastfeeding practices at all levels is crucial to identify

barriers and develop adequate strategies to increase its practice among women of reproductive age in Puerto Rico. For such purposes, members of NGOs within the PRDOH BPC will engage in gathering additional data through surveys, telephone interviews and other means on their own. The information gathered will be made available to the Committee and the MCAH Program to be used as considered fit. As an example, hospitals particularly need to provide breastfeeding friendly scenarios to facilitate initiation of this practice by early pp women and to motivate them to continue at least through the baby's first year. For this reason, data collected may help us identify those hospitals in the Island that are not observing local existing laws, such as Law 156 of 2006 (to assure women the right to have a companion during labor, at birth and in the postpartum period) that includes rooming-in alternative, and breastfeeding rights, among other benefits; in turn, we may provide technical assistance to help them comply with this requirement. The BPC is a key component in this task.

The MCAH Program will continue joining efforts with collaborators like WIC Program and LACTA Project, by means of the BPC, to provide breastfeeding promotion events at public level, for health care providers in general and for administrative and perinatal health staff at birthing facilities, particularly facilities with low breastfeeding rates, as a strategy to increase their awareness of the benefits of breastfeeding and to eliminate existing barriers.

Results from the ESMIPR 2012 which include breastfeeding information will be available in the PRDOH web page for the benefit of health providers and other interested persons.

**Performance Measure 12:** Percentage of newborns who have been screened for hearing before hospital discharge.

2009

2014

99.6

2010

Provisional

2015

99.6

2011

2008

# Tracking Performance Measures [Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

2007

2012

99.5

2013

99.5

**Annual Objective and** 

applied.

Final?

Objective

Is the Data Provisional or

Annual Performance

Performance Data					
Annual Performance	90	98	98	100	99.5
Objective					
Annual Indicator	97.5	97.9	98.4	99.5	98.8
Numerator	44965	44245	42957	37859	40026
Denominator	46096	45193	43673	38037	40518
Data Source		PR Hearing	PR Hearing	PR Hearing	PR Hearing
		Screening	Screening	Screening	Screening
		Program	Program	Program	Program
Check this box if you					
cannot report the					
numerator because					
1.There are fewer than 5					
events over the last year,					
and					
2.The average number of					
events over the last 3					
years is fewer than 5 and					
therefore a 3-year moving					
average cannot be					

Provisional

2016

99.6

Data for 2011 were provided by the Hearing Screening Program form the PR Department of Health.

#### Notes - 2010

Data for 2010 were provided by the Hearing Screening Program from the PR Department of Health. The annual performance objectives for 2011-2014 were revised.

## Notes - 2009

Data for 2009 provided by the Hearing Screening Program from the PR Department of Health.

### a. Last Year's Accomplishments

One of our last year objectives was to maintain or increase 99.5% the percentage of newborns screened for hearing loss and to monitor follow up services for identified newborns. The percentage of screened newborns for this reporting year was 98.8%. Data for 2011 indicated that 40,026 out of 40,518 reported newborns were screened for hearing loss and, of these, 873 (2.18%) were identified with possible hearing loss. During this reporting year, the previous Program Coordinator provided consistent follow-up to hospitals in reporting cases on a monthly basis, gave follow-up to the different scheduled activities of the Program. She also assumed the responsibilities of the Service Coordinator, unavailable personnel, whose principal function is to be in charge of actively giving follow up to parents of referred babies for compliance with Law No. 311 and its Regulation No. 114, enacted in 2003 and 2004, respectively.

Another objective was to increase the number of children identified by hearing screening tests who received diagnostic testing by 3 months, and treatment before 6 months of age. During 2011, 215 families out of 873 identified babies were contacted (24.6%). Percentage of contacted families was increased compared with 2010 (22.2%). From the total number of identified babies (873), 204 (23.4%) cases were closed. Of these closed cases (204), 170 (83.3%) had normal hearing results; 3 (1.47%) were closed due to passed hearing screening done after hospital discharge but before the first month of age; 26 (12.7%) were closed due to several reasons including incomplete or erroneous demographical data, loss of contact, duplicated, and parents moving to the US, among others; and 5 (2.45%) were identified with hearing loss (1 with sensorineural hearing loss and 4 with conductive hearing loss).

Between August and October 2011, collaborative relationships were established with Early Head/Head Start Program and the Doctor of Audiology Program of the Medical Sciences Campus of the University of Puerto Rico, in order to be able to corroborate if newborns were screened for hearing loss before hospital discharge and to improve the loss of documentation and follow-up.

The Head Start Center of Ponce, Puerto Rico acquired new Otoacoustic Emissions equipment for the performance of hearing screening to all the students admitted. During November 2011, an introductory training of Otoacoustic Emissions Test was offered for the teachers of this Center. UNHSP continues implementing promotional and educational activities with the purpose of raising awareness among both the general population and health care professionals about the existence of the UNHSP reporting requirements, laws, regulations, required procedures and suggested protocols, our program goals and its achievements.

In December 2011, the Program contracted a Service Coordinator, who started working in the Program in January 2012.

An updated list of audiologists who act as hearing screening coordinators at the participating birthing hospitals and their respective supervisors was created.

The UNHSP participated in various educational events to raise awareness about hearing loss. During the last year, educational conference and materials about hearing loss and neonatal

hearing screening were provided to participants at hospitals facilities.

**Table 4a, National Performance Measures Summary Sheet** 

Activities		Pyramid Level of Service				
	DHC	ES	PBS	IB		
Provide follow up tracking to stakeholders to increase the				Х		
number of newborns who have the audiological evaluation						
before three months of age.						
2. Develop promotional activities to create awareness of UNHSP			Х			
in the general population, especially to parents with referred						
babies.						
3. Supervise UNHSP in hospitals to maintain high quality				Х		
services.						
4. Keep updating information about UNHSP to stakeholders that				Х		
include hospitals, audiologists, speech language pathologists,						
nurses and physicians.						
5. Establish collaborative relationships with Demographic				Х		
Registry and WIC Program in Puerto Rico to reduce loss of						
documentation and loss to follow-up.						
6. Increase the awareness of the UNHSP CANU Online data				Х		
tracking system by audiologists and participating birthing						
hospitals to document follow-up services.						
7. Introduce the updated on-line electronic tracking system to				Х		
audiologists who act as the hearing screening coordinators at						
participating hospitals.						
8. Provide training for stakeholders in the use of the new on-line				Х		
electronic tracking system.						
9.						
10.						

### **b.** Current Activities

In January 2012, the Service Coordinator began to work at the Program and received a complete training about its job description, roles and responsibilities. Actually, its principal duty is to be in charge of actively giving follow up to parents of referred babies for compliance with Law No. 311 and its Regulation No. 114, enacted on 2003 and 2004, respectively.

In March 2012, the Program Director and the Service Coordinator participated in the 11th Annual Conference celebrated in St. Louis, Missouri.

At present, the Program is working in the updating of audiologists who evaluated newborns and infants through diagnostic tests required by Law #311 and, also, a list of audiologists who accepts most of the medical insurances, including Mi Salud.

A Family Advocate is currently in the recruitment process to assist the Service Coordinator with follow-up activities. Also, the Program is in process to contract the services of Central Division for Continuing Education and Professional Studies of the University of Puerto Rico, Medical Sciences Campus, to carry-out the UNHS Program activities including the Annual Stakeholder meeting to present program updates as well as relevant information on audiology topics, to share data reports, and to provide guidance on deadlines for data submission.

### c. Plan for the Coming Year

The UNHSP will continue its efforts to increase the number of children identified by hearing screening tests who receive appropriate follow up services. To achieve this, the program will attempt to implement the strategies recommended by the National Initiative for Child Health Quality (NICHQ) learning collaborative, as they were found to be effective in reducing the number of infants and families that are lost to follow up.

Also, the Program will provide activities including the Annual Stakeholder meeting to present program updates as well as relevant information on audiology topics, to share data reports, to provide guidance on deadlines for data submission, and to introduce the updated on-line electronic tracking system. Other activity is a meeting for pediatricians which will provide Program staff an opportunity to give pediatricians an updated listing and contact information of community audiologists serving newborns and infants, as well as relevant information on audiology topics. For both activities, continued education credits will be offered to participants. With this strategy, we are expecting to reduce the loss to follow-up after failure to pass the newborn hearing screening.

Promotional and educational activities will continue to raise awareness among the general population (especially for parents with referred babies) and health professionals of the UNHSP reporting requirements, laws, regulations, procedures and protocols. The UNHSP will continue to monitor the health insurance agencies' compliance on covering audiological evaluations of children referred by the Newborn Hearing Screening as part of their benefit package. This obligation is established by Law #311, 2003 (Law of Universal Newborn Hearing Screening).

The Program will seek collaboration with the Demographic Registry in order to be able to corroborate if newborns were screened for hearing loss before hospital discharge and identify those birth outside the birthing facilities and not reported to UNHSP. This information will help the Program to improve the follow-up of not screened babies and to improve statistical data. In addition, the Program will contact WIC offices to reinforce the importance of audiological follow-up among participant and will continue with its commitment to educate pediatricians, audiologist, birthing hospitals and parents, in order to achieve its goal of early hearing intervention when appropriate.

### Performance Measure 13: Percent of children without health insurance.

# Tracking Performance Measures

[Secs 485	(2)(2)(B)(iii)	and 486	(a)(2)(A)(iii)]

Annual	2007	2008	2009	2010	2011
Objective and					
Performance					
Data					
Annual	1	0.3	0.3	8	12.9
Performance					
Objective					
Annual Indicator	0.4	10.6	8.6	13.5	14.3
Numerator	4522	116932	93644	143213	149765
Denominator	1121697	1104427	1094273	1062616	1047256
Data Source		Health	Health	ASES and	Health
		Insurance	Insurance	Major	Insurance
		Commissioner	Commissioner	Private	Commissioner
		Office	Office	Health	Office and
				Insurance	ASES
				Companies	
Check this box if					
you cannot report					

the numerator because 1.There are fewer than 5 events over the last year, and 2.The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
ı ıııaı:	2012	2013	2014	2015	2016
Annual Performance Objective	14.3	14.3	14.3	14.3	14.3

Numerator: Health Insurance Administration (ASES) and the Health Insurance Commissioner (HICO).

Denominator: US Census Bureau, 2011.

Calculation: ASES and HICO provide data of insured children in PR for current year. Considering the population estimates by the US Census and the insured children, uninsured children are estimated.

# Notes - 2010

Numerator: Health Insurance Administration (ASES), 2010 and 5 Major Private Health Insurance companies in PR, 2010 (Humana Inc., Triple S, MCS, MAPFRE and First Medical). Denominator: US Census Bureau, 2010.

Calculation: ASES and the 5 Major Private Health Insurance companies provide data of insured children in PR for current year. Considering the population estimates by the US Census and the insured children, uninsured children are estimated.

#### Notes - 2009

Updated data for 2008.

Numerator: Health Insurance Commissioner Office (HICO), 2009.

Denominator: US Census Bureau, 2009.

Calculation: HICO provides data of insured children in PR for current year. Considering the population estimates by the US Census and the insured children, uninsured children are estimated.

# a. Last Year's Accomplishments

A preliminary estimate of 2010, reported a total of 1,062,616 of children 0-19 years old in PR. As of October of 2010 the new Integrated Health Model (modified GIP) was implemented and 504,674 children from 0 to 19 years old were covered with this modified health insurance, whereas 414,729 covered by the 5 major Private Insurance companies (data from Health

Insurance Commissioner Office (HICO) was not available and the 5 major PI most of the private sector). Therefore, about 13.5% of children were estimated to be uninsured by 2010. If we use the Census 2010 reported 0-19 population (1,047,256), the estimated uninsured was 12.2%.

The health insurance status of the HVP participants is evaluated by the HVN. A total of 124 women received a referral to the Medicaid Program and 183 children 2 years old or less were uninsured and were referred to the PRMP during CY 2011.

**Table 4a, National Performance Measures Summary Sheet** 

Activities	Pyramid Level of Servic					
	DHC	ES	PBS	IB		
1. Conduct outreach activities to identify children without health insurance and refer them to Medicaid for evaluation and qualification.		Х				
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

#### b. Current Activities

According to the 2010 Census 1,047,256 children and adolescents 0 to 19 years old lived in PR, estimated data for 2011 is not available. According to data provided by the HICO and ASES, 383,900 and 513,591 children were insured in 2011. Therefore, approximately 14.3% of children of 19 years or less were uninsured during 2011.

This increase may be due to the change of data source and the decreasing population insured by the government. Another phenomenon that could be contributing to this increase is the effects of Law No. 7 of March 3, 2009 implemented as a result of the financial crisis taking place in the Island. As a result, nearly 17,000 employees have been laid off from public agencies and others from private companies.

MCAH Program staff devote most of their work days performing outreach activities in numerous venues. They're constantly trying to identify pregnant women, children and adolescents without health care insurance and ensuring they receive GIP benefits if eligible. During this year, the CHWs continued to identify Medicaid eligible children and link them with the Medicaid offices closest to their homes.

Identifying the health insurance status of HVP participants and their family members and refer to PRMP those without it, is one of the first tasks of the HVNs.

# c. Plan for the Coming Year

The MCAH Program, CHWs and HVNs will continue reaching out to children and families without health care insurance and provide them with referrals to the Medicaid Program.

Sources of information to improve this PM need to be multiple for which including specific question on insurance coverage in all surveys addressing the 0--19 years old population and

providing information on eligibility to the GIP will be consider.

The Puerto Rico Immunization Registry (PRIR) is a computerized Internet database application developed to record and track immunization data of Puerto Rico's children and adults, insurance coverage is among the information registered in this database. In spite of the PRIP efforts, not all the immunization providers are connected to the PRIR and the insurance coverage is updated during the last vaccine administered, which is a limitation and the information will be only an approximation. The MCAH Program will use the PRIR data on insurance coverage for children 0 to 19 years old as another source of information for this PM activities and strategies to develop.

**Performance Measure 14:** Percentage of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile.

# Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance Objective	39	38	37	38.3	36.3
Annual Indicator	39.7	39.0	37.7	37.3	35.8
Numerator	30647	38372	37635	37417	32019
Denominator	77219	98391	99828	100313	89438
Data Source		PR WIC	PR WIC	PR WIC	PR WIC
		Program	Program	Program	Program
Check this box if you cannot					
report the numerator because					
1.There are fewer than 5 events					
over the last year, and					
2.The average number of events					
over the last 3 years is fewer than					
5 and therefore a 3-year moving					
average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	35.3	34.8	34.3	33.9	33.4

#### Notes - 2011

Data for 2011 calculated based on data provided by the PR WIC Program of the PR Department of Health for the period of January to December 2010.

The annual performance objectives for 2012-2016 were revised.

# Notes - 2010

Data for 2010 calculated based on data provided by the PR WIC Program of the PR Department of Health for the period of January to December 2009.

#### Notes - 2009

Data for 2009 calculated based on data provided by the WIC Program of the PR Department of Health for the period of January to December 2008.

# a. Last Year's Accomplishments

WIC Program data has shown a downward trend in the prevalence in the number of children ages 2-5 enrolled in the program who have a BMI's at or above the 85th percentile. The most recent report reflects 35.8% of WIC participants in this age range have a BMI that would classify them as overweight or obese.

The "Niños y Jóvenes Saludables, Activos y Bien Nutridos" Alliance established to address the obesity epidemic transitioned to a non-profit organization. It was incorporated under the name Pediatric Obesity Prevention Alliance Inc. Its vision, mission and organizational structure have remained basically unchanged. It continues to work to coordinate and integrate the efforts of government agencies, representatives of the academia and other private entities in their efforts to reduce the obesity prevalence among children living in PR. The Alliance provides its members the opportunity to share resources and initiatives. In addition, it also encourages members to establish collaborative agreements in an effort to help the Alliance mission, vision and goals. It has three Sub Committees. The Education Sub Committee provides technical assistance and evaluates and endorses the educational materials and curricula submitted for their revision. The Public Policy Sub Committee develops and promotes the approval of public policies that promote healthy living. They have developed a policy draft that delineates the roles and responsibilities local agencies should assume to fight obesity in a coordinated efficient manner.

In March 2011 the results of the Alliance's Investigation, Evaluation and Surveillance Sub Committee study conducted to monitor the progress of the obesity epidemic in PR were presented during the meeting of the American Dietetic Association Puerto Rico Chapter. This study revealed 37.2% second grade students had a BMI at or above the 85% for age and sex. Although this represents a reduction in prevalence when compared with the one measured in 2005 of 42%; this reduction is not statistically significant. Although some progress has been noted our rate is still higher than the reported US rate but similar to the reported rate for Hispanics of similar age living in urban areas in the US. Other significant findings were a statistically significant increase in the percent of second grade students who are underweight. This prevalence rose from 2.3 in 2005 to 4.3 in 2009. Parents reported 80% of their children refused to eat vegetables, 11% fruits and 10% milk. Thirteen percent reported not being physically active and 80% spent over two hours per day in front of a screen.

The HS Project expanded its Healthy Weight Interconceptional Learning Care Collaborative to the Aguadilla-Mayaguez Region. A total of 16 MCAH staff were trained in use of the UPR Agricultural Extension Food and Nutrition Educational Program. This allowed them to offer these educational activities at the community level. A Body Works Curriculum train the trainer session was held on December 2010. A total of 40 persons were certified as new Body Works Trainers.

The Alliance hosted the First Childhood Obesity Research Forum. During the event, 8 local research papers were presented by local investigators. Afterwards attendees were able to share their opinions and recommendations regarding future investigation topics. The Alliance continued to disseminate information regarding local obesity prevalence data to create awareness of the severity of the problem in PR. This has contributed to an increased the interest among the general population in the topic. Many individuals, organizations and universities have been motivated to start their own initiatives to fight childhood obesity.

The Sports and Recreation Department "Juega por tu Salud" program continued to help overweight middle school children achieve a healthy weight by providing them the opportunity to participate in organized sports. This Program facilitates their participation by adapting the games rules and regulations to their ability.

Our HVN's and CHW's have promoted healthy eating during their daily activities. During FY 2010-11, they offered 154 activities to promote physical activity and healthy eating. A total of 2,395 persons participated in them. In addition, they promoted breastfeeding on 251 separate educational activities attended by 2,845. The topic of adequate nutrition during pregnancy was offered on 102 different occasions and reached 1,236 persons.

Activities	Pyram	id Leve	el of Ser	vice
	DHC	ES	PBS	IB
1. Continue participating and strengthening the Alliance with the purpose of educating, designing and performing applied research and developing public policy to reduce the prevalence of childhood obesity in PR.				Х
2. Analyze data from the study conducted to measure the BMI of a representative sample of students attending grades 2, 5, 8 and 11 in PR, and administer a questionnaire that will help identify their dietary intake and physical activity.				X
3. Complete to gather data and analyze the data for ethnographic study to identify social and cultural variables that contribute to the obesity problem in Gurabo.				X
4. Increase communication and collaboration among governmental, private and non profit agencies that are developing research and implementing interventions for the reduction of overweight in children.				X
5. Educate journalists, communicators, media, community representatives and the public at large on issues related to pediatric obesity and encourage healthy eating and daily exercise.			Х	
6. Collaborate with other PRDOH secretariats and agencies in their obesity prevention efforts and health promotion activities.				Х
7. Lobby for the approval and implementation of a public policy that integrates and coordinates local efforts to improve the nutritional status and increase the level of physical activity our children and their parents have.				Х
8.				
9. 10.				

#### b. Current Activities

WIC continues to provide their interventions using the motivational interview and has modified the foods included in their packages to promote the early adoption of healthy eating habits. The Breastfeeding Committee continues to work to increase the Breastfeeding rates in PR. The CPPW project period continues to advocate for environmental changes and the implementation of public policies that promote healthy lifestyles.

The Adult Perceptions of Childhood Eating, Physical Activity and Obesity: An Anthropological Perspective study was completed. This qualitative study explored parents' and caretakers views of the eating habits, physical activity and obesity of school-age children. Key themes that emerged: food selection decision-making, influences on children's food preferences, social pressure to satisfy children's tastes, and contradictions between knowledge and practice. Food purchasing patterns are influenced mainly by high cost of foods. While parents know what types of food are healthier they are uncertain about making children consume them. Parents are aware of social, emotional and health consequences of obesity, but feeding children regardless of nutritional content is an immediate aim. Peers were also seen to influence children's food preferences and eating habits.

Twelve MCAH Adolescent Coordinators were certified as Body Works trainers in April 2012.

### c. Plan for the Coming Year

Preliminary results of the 2009 Alliance study revealed several areas of interest that require further evaluation and analysis. Among them is a statistically significant increase in the underweight category between the 2005 and the 2009 study. Other areas of interest are the slight differences in prevalence between the public and private schools and the environmental factors associated with the different weight categories. The Alliance's Investigation, Evaluation and Surveillance Sub Committee will participate in further analysis and interpretation of the results. Based on their conclusions and recommendations a strategic plan will be modified accordingly. Results of the study will be disseminated to the general public and to all those that can help implement the plan.

During this year, we will again attempt to obtain the Governor's approval for the Public Policy draft prepared by the Alliance Subcommittee on Public Policy. The document assigns the responsibility of developing a five year strategic plan to stabilize and then reduce the pediatric obesity rates to the Alliance. It also establishes that agencies and organizations must work together to maximize scarce resources and prevent duplicity since no group or agency alone will be able to reduce or eliminate the problem alone particularly in these times of financial crisis. The policy defines the roles and responsibilities each participating agency or institution must assume once it is finally approved.

The strategic plan to reduce obesity by improving nutrition and increasing the physical activity level in the population will take into consideration the results from all the local investigations that shed light on the social, cultural, economic, ethnographic factors that contribute to the elevated overweight rate.

The Alliance Education Sub Committee will continue to meet and partner with stakeholders to disseminate messages regarding the need to increase physical activity and healthy eating habits. Our staff will continue to promote physical activity, breastfeeding, healthy nutrition and compliance with the food pyramid recommendations during their home visits and community based activities. Messages will be directed towards adults with children of all ages and not exclusively at those between the ages of 2-5, since they can all become agents for change and can model healthy behaviors for the entire population.

The Body Works train the trainer sessions will be repeated. Representatives from United Way, Boys and Girls Club, Fundación El Angel, members of the Alliance and representatives from the municipalities that participated in the Community Putting Prevention to Work Project will be invited to participate.

The MCAH Anthropological study will be presented during the International Childhood Obesity Prevention Conference in September 2012.

**Performance Measure 15:** Percentage of women who smoke in the last three months of pregnancy.

# Tracking Performance Measures [Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	2.6	1.4	1.4	1.1	0.8
Annual Indicator	1.1	1.1	0.9	0.9	0.9
Numerator	20	20	17	17	17
Denominator	1876	1876	1867	1867	1867
Data Source		ESMIPR	ESMIPR	ESMIPR	ESMIPR
Check this box if you cannot report the numerator because					

1.There are fewer than 5 events over the last					
year, and					
2.The average number of events over the last					
3 years is fewer than 5 and therefore a 3-year					
moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	0.8	0.7	0.7	0.7	0.7

Data for 2009 was updated.

Data provided by the 2010 ESMIPR (PRAMS like survey) form the MCH Program of the PR Department of Health.

#### Notes - 2010

Data provided by the 2010 ESMIPR (PRAMS like survey) from the MCH Program of the PR Department of Health.

#### Notes - 2009

Preliminary data provided by the 2010 ESMIPR (PRAMS like survey) from the MCH Program of the PR Department of Health.

# a. Last Year's Accomplishments

In accordance with the PRAMS-like surveillance study (ESMIPR, Spanish acronym) carried out every two years by the MCAH Program, the prevalence of tobacco use among pregnant women during the third trimester was 0.9%. The Home Visiting Nurses (HVNs) continue implementing the smoking cessation program. The "Perfil de la Participante" (Participant's Profile) is the instrument designed to collect information regarding smoking status, to determine addiction severity, susceptibility to change and level of motivation and support. The information gleaned from this instrument allows the HVN to tailor the educational content and the motivational intervention. The self-help diary "Mi Gran Decisión" is used as a complement to the HVN's intervention and is meant to guide the participant through a seven-day quitting process.

HVNs and CHWs point out the importance of avoiding environmental tobacco smoke (ETS) for women who, although not smokers themselves, live or spend time with smokers. Orientation and education are offered to these women on an individual basis, and educational materials reinforcing the information are distributed to them. Referrals to the Quit line are made for participants and any other family member that smoke.

Educational materials regarding both smoking and exposure to ETS are distributed in health fairs and other community education activities. In FY 2010-2011, a total of 226 educational activities on ETS and smoking prevention were carried out, reaching 3,668 participants.

Table 4a, National Performance Measures Summary Sheet

Activities		Pyramid Level of Service					
	DHC	ES	PBS	IB			
Share information of the ESMIPR survey with concerned individuals.				Х			
2. Screen HVP participants for tobacco use and provide management according to the level of risk.	Х						
3. Update providers' knowledge regarding screening and management of tobacco use during pregnancy.				Х			

4. Include the topics of alcohol, tobacco and illicit drug use in		Х	
patient orientations.			
5. Disseminate educational materials on adverse effects of high		Χ	
risk behaviors during pregnancy.			
6. Increase public awareness of poor birth outcomes associated		Χ	
with risky behaviors.			
7. Promote the use of the Quit line among WCBA.		Χ	
8.			
9.			
10.			

### **b.** Current Activities

HVNs continue to implement the smoking cessation program. Written materials are used to complement educational activities addressing the topic of the effects of tobacco use, in those performed at the community level by the CHW's. The effects of smoking on the fetus are covered in educational activities for pregnant women.

In 2011, 32 pregnant HVP participants screened reported smoking during pregnancy. From them, 24 report stopped smoking and 6 significantly reduced their tobacco use. Only 2 of them continued smoking at the same rate.

# c. Plan for the Coming Year

All Home Visiting Program participants will continue to be screen for tobacco use by HVNs. Management according to the level of risk will be provided. HVNs will continue to pay special attention to women who quit smoking during pregnancy to avoid a postpartum relapse.

CHWs will also continue to include the topics of alcohol, tobacco and drug use in educational activities and individual orientations during their interventions in the community. These topics will be covered in depth during the prenatal and parenting courses and other educational activities.

**Performance Measure 16:** The rate (per 100,000) of suicide deaths among youths aged 15 through 19.

# Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance	1	1	1	2	1.3
Objective					
Annual Indicator	2.7	2.3	3.1	2.8	2.7
Numerator	8	7	9	8	8
Denominator	297823	298181	288479	282897	293153
Data Source		Death Certificate OITA	Death Certificate OITA	Death Certificate OITA	Death Certificate OITA
Check this box if you cannot report the numerator because 1.There are fewer than 5 events over the last year, and					

2.The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	2.7	2.6	2.6	2.5	2.4

Updated data for 2009 and 2010.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provide by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

The annual performance objectives for 2012-2016 were revised.

#### Notes - 2010

Updated data for 2008 and 2009.

Numerator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR

Department of Health.

Denominator: Population Estimates provide by the US Census.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

#### Notes - 2009

Updated data for 2007 and 2008.

Because Vital Statistics (VS) data was not available for 2009, an estimated data was obtained through the trend analysis using the last 9 years (2000-2008) and a linear curve estimation regression model. For the methodology used, refer to the Appendix 5.

Numerator: Data for the analysis was provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: Population Estimates provide by the US Census.

#### a. Last Year's Accomplishments

During FY 2010-2011, the MCAH staff in the Health Regions carried out activities related to the mental health of adolescents that are important in preventing suicides. These activities revolved around the topics of self-esteem and ways to handle emotions. Having the necessary tools to improve and/or maintain self-esteem as well as how to face difficult situations are important to primary prevention of suicides in the adolescent population. Low self-esteem and sentiments like anger and sadness may lead to suicidal ideas and suicide. These activities were: a) 306 presentations on self-esteem reaching 5,133 adolescents of which 1,605 were in the 10-14 age group while 1,242 were aged 15-19; b) 142 workshops on the topic of how adolescents can face and handle their emotions with 784 adolescent participants of which 517 were between the ages 10-14 and 267 between the ages 15-19. The staff also carried out 108 activities related to conflict resolution (violence prevention) reaching a total of 1856 adolescents of which 593 were between

the ages 10-14 and 981 were aged 15-19. Carrying out activities around conflict resolution may help in preventing suicidal behavior. According to the CDC study "Victimization by Peers and Adolescent" (Wyatt and Fang, 2009) there is a strong connection between peer victimization and adolescent suicide.

The ASSMCA Mental Health Support Line PAS (Spanish Acronym for First Psychosocial Aid) crisis toll free line reported a total of 219,581 calls received related to mental health issues. Of the 219,581 calls, 6,573 came from adolescent persons between the ages 10-20: a) 203 calls were from teens aged 10-14 (119 females and 84 males); b) 1,478 calls came from the age group 15-17 (965 females and 513 males) and; c) 4,892 calls from youth between the ages 18-20 of which 2,981 were females and 1,961 were males. The five main reasons for calling the service were: talk to someone for relief, suicidal behavior (ideas threats and attempts), crisis intervention (depression, anxiety and phobia), coordination of psychiatric/psychological evaluations, and mental health orientations. The PAS program also offered educational activities on suicide prevention in schools settings to 2,372 students and 248 teachers. They distributed 140,882 educational materials on suicide prevention in health fairs, workshops and community at large.

During 2010-2011, the Puerto Rico Commission for Suicide Prevention (PRCSP) of the PRDOH distributed 46,766 "To Save Lives" kits educational materials island wide. The educational materials included brochures, posters, pocket cards and flyers containing information on crisis intervention services, signs and behaviors associated with suicide, and ways to handle these situations. During this reporting period, the Commission opened regional offices in Ponce, Mayaguez, Aguadilla and Metro health regions to provide educational activities to both nongovernmental and government agencies. The Commission carried out activities around suicide prevention targeted at the general public: 1) The National Suicide Prevention Day with 1,000 participants; 2) One suicide march in which 500 persons including middle and high school students participated; and: 3) Presentations of the play "CHEESE, Sonríe a la Vida Aquí va la Foto" (CHEESE, Smile to Life Here is the Photo) in four municipalities with 3,600 attendees of all ages including middle and high school students. The PRCSP also participated in 4 radio programs to make the public aware of suicide and its prevention. In addition, an island wide mass media campaign under the heading "Mantén tu vida en on" (Keep your life on) was conducted to create public awareness of suicide signals and prevention. The campaign reached approximately 100,000 people of all ages.

**Table 4a, National Performance Measures Summary Sheet** 

Activities	Pyram	id Leve	l of Serv	vice
	DHC	ES	PBS	IB
1. Analyze available VS and other data sources on suicide prevalence.				Х
2. Provide training to government and non-government health and human service providers in suicide crisis management and prevention.				X
3. Increase public awareness of the signs and symptoms associated with suicidal ideation by distributing educational materials and providing group orientations and presentations.			X	
4. Distribute the "To Save Lives" kits developed by the Commission for Suicide Prevention.		Х		
5. Promote among the public and professionals the use of the PAS (First Psychosocial Aid) hotline.			Х	
6. Provide life-skills tools to adolescents to increase self-esteem and healthy ways to face difficult life situations.		Х		
7.         8.				

9.		
10.		

#### **b.** Current Activities

The MCAH staff in all Health Regions continues holding activities related to the mental health of adolescents with special emphasis on self-esteem and ways to handle emotions. The PAS hotline continues receiving calls for crisis intervention, information, and suicide prevention from both adults and adolescents. The PR Commission for Suicide Prevention continues carrying out activities and distributing educational materials on suicide prevention.

The Comprehensive Adolescent Health Services Program (SISA, Spanish acronym) recently joined the Youth Suicide Prevention Community of Practice to enhance existing efforts to prevent youth suicidal behavior in Puerto Rico. The Youth Suicide Prevention Community of Practice is intended to strengthen states' responses to adolescent suicidal behavior, learn about evidence-based practices, and understand what is happening in other states. As part of this effort, each state will form a 3-5 person multidisciplinary team to work on this issue and participate in webinars on data and prevention strategies. The PR team is composed of representatives from the Comprehensive Adolescent Health Services, the Center for the Prevention of Sexual Abuse (CAVV, Spanish acronym) and the Commission for Suicide Prevention.

# c. Plan for the Coming Year

PRMCH will implement the following plan to address the prevention of teen suicidal behavior and the promotion of healthy lifestyles among youth:

- 1. Presentations in school and community settings on topics related to adolescent self-esteem and ways to handle emotions in all health regions.
- 2. Promote the utilization of the ASSMCA Mental Health Support Line PAS toll free hotline among youth, parents and professionals.
- 3. Assist the PR Commission for Suicide Prevention in the distribution of the "To Save Lives" kit and other informational packets on adolescent suicide prevention throughout the health regions.
- 4. The PR Youth Suicide Prevention Community of Practice Team will participate in monthly webinars on data and prevention strategies.

The PR Commission for Suicide Prevention has planned the following activities for the coming year:

- 1. Conduct a mass media campaign on suicide prevention from August through December.
- 2. Hold presentations and workshops on suicide prevention targeted at both professionals and the public at large.
- 3. Celebrate the National Suicide Prevention Week (August 2012).
- 4. Celebrate the International Suicide Prevention Day (September 2012).
- 5. Celebrate the Suicide Prevention Awareness Day (December 2012).

**Performance Measure 17:** Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.

# Tracking Performance Measures

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective	47	49	51	55	53.9

Annual Indicator	53.8	52.3	51.1	51.7	53.2
Numerator	351	359	331	287	345
Denominator	652	686	648	555	648
Data Source		Birth	Birth	Birth	Birth
		Certificate OITA	Certificate OITA	Certificate OITA	Certificate OITA
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	55.5	57.2	58.9	60.6	61.3

Updated data for 2009 and 2010. Classification according to Perinatal Care Guidelines Review Committee, 2007.

Numerator and Denominator: Data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

Unknown data of birthweight is excluded.

## Notes - 2010

Updated data for 2009. Classification according to Perinatal Care Guidelines Review Committee, 2007.

Numerator: Data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: Data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

#### Notes - 2009

Updated data for 2007 and 2008. Classification according to Perinatal Care Guidelines Review Committee, 2007.

Numerator: data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Percent change were calculated to estimate 2009 data, Vital Statistics (VS) data was not available for this year.

# a. Last Year's Accomplishments

According to Vital Statistic (VS) data and the PCGRC guidelines, the percentage of very low birth weight (VLBW) infants delivered in facilities prepared to manage high risk deliveries and neonates was 51.7% in 2010.

During May 2011, PCGRC met again to review the guidelines with the 6th edition of Guidelines for Perinatal Care by AAP and ACOG. During these meeting the final findings of the previous study (2008) was presented to the members of the committee. In addition, several changes for the guidelines were recommended.

During FY 2010-2011, the Prematurity Taskforce (PRPT) organized by the PR Chapter of March of Dimes (MOD) planned several activities. A Symposium of Strategies for the Prevention of Premature Births was celebrated during August 2010 being with lecturer Dr. Charles Lockwood as the keynote speaker. As part of the Month of Prematurity Awareness (November), MOD had a press conference, as well as a ceremony in a Hospital in San Juan launching the awareness campaign and a media tour presenting the MOD Prematurity Report Card for PR. Also, a Public Service Announcement (PSA) called "Piece of Art" was broadcast throughout 2010 in Univision PR.

The Prenatal Care Card (PNC Card), developed by the MCAH Program to ensure that the pregnant women have with them at all times information regarding their PNC, was submitted FY 2009-2010 to the ASES to be distributed to all the insurance companies that offer services to GIP participants with the objective of standardizing this information among this population. For FY 2010-2011 the PNC Card was submitted to insurance companies such as Humana and Medical Card System (MCS).

HVNs routinely assess their clients for risks associated with premature and VLBW delivery. They provide appropriate education/counseling regarding the signs and symptoms associated with premature labor and provide them information regarding the closest birthing facility with Level III perinatal services. During last year, HVNs visited 4,931 families and identified their OB needs. During these visits, 8,773 individual cases in the community were identified as possible candidates to participate in the program or were referred to different health programs.

The MCAH Program Prenatal Course focuses on the special needs of the participants. It is composed of 4 sections that cover prenatal care (PNC), healthy eating habits, physical activity, orientation of labor and delivery, breastfeeding, newborn care, family planning, among others. For FY 2010-2011, 100 sessions of these courses reached 2,103 participants.

During FY 2010-2011, the MCAH Community Health Workers (CHWs) distributed educational material and offered 111 group activities on the subject of signs and symptoms of premature labor to 1,308 participants across the Island. Likewise, orientations regarding where to seek emergency assistance in case premature labor ensues were offered during these activities.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service		/ice	
	DHC	ES	PBS	IB
1. Educate pregnant women on the risk of preterm delivery and			Х	
where to go in case of an emergency.				
2. Disseminate educational materials explaining signs and			X	
symptoms of PTB.				
3. Collaborate with the PR March of Dimes Prematurity				Χ

Taskforce.			
4. Promote the use of a prenatal care card with pertinent		Х	
information to be carried at all times by pregnant women.			
5.			
6.			
7.			
8.			
9.			
10.			

#### **b.** Current Activities

According to AAPC for 2011 (53.2%), there has been a 3% increase of VLBW infants born at facilities for high-risk deliveries and neonates since 2010 (51.7%).

The lack of a formal classification of perinatal facilities and the constant change in the services they provide to newborns presents a problem to properly identify the level in which a VLBW baby is born. Many VLBW may be occurring in facilities that are prepared for high-risk deliveries but they are not identified as such.

The proposal and questionnaire for the 2012 Perinatal Level Classification are being revised according to the reviewed PCGRC guidelines (2011).

Currently a descriptive analysis to identify newborns outcome depending on their place of birth (considering PCPGRC guidelines) was developed using 2008 VS. Approximately 52% (N=359) of all VLBW occurred in level III birthing hospitals, 1.7% of them died before their first year.

HVNs and CHWs continue to educate pregnant women on the signs and symptoms of preterm delivery and providing them with information regarding the Level III facilities closest to them.

## c. Plan for the Coming Year

Communication with the three obstetric residency programs in PR (2 in San Juan and 1 Ponce) is in process in order to share the mayor findings of the 2008 Perinatal Level Classification study to the residents. Also the possibility of presenting these findings in the Sunshine Seminar in August is being explored.

With the objective of maintaining updated information of the perinatal care of PR birthing hospitals, the reclassification of perinatal care according to the revised PCGRC guidelines will be repeated in August 2012. This will be performed every other year.

Considering PCGRC guidelines for the classification of birthing hospitals in Puerto Rico, the MCAH Program will continue performing a descriptive analysis to identify newborns outcome depending on their place of birth. The findings of this study will be shared with perinatal providers and executive directors of birthing facilities across the Island. We expect birthing hospitals will be able to coordinate among themselves and establish a regional referral network based on their assigned level of care. This will allow them to provide services in the appropriate facilities to pregnant women, based on their level of risk for a poor pregnancy outcome.

MOD will continue its aggressive prematurity awareness campaign in the media. Therefore, the MCH Program will continue to participate in the PRPT organized with the objective of identifying specific causes that might explain the increase in premature births.

The MCAH staff and HVNs will continue to educate pregnant women to recognize the early signs

and symptoms of premature delivery. In addition, we will stress the importance of knowing where the closest Level III facilities are located so they will know where to go for an obstetrical evaluation in case premature labor signs and symptoms appear. In addition, educational materials and information concerning signs and symptoms of premature labor will be disseminated to pregnant women.

The Prenatal Courses will continue on a regular basis. The signs and symptoms of a premature labor will be addressed during the sessions.

**Performance Measure 18:** Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.

# Tracking Performance Measures

[Secs 485]	(2)(2)(B)(iii)	and 486	(a)(2)(A)(iii)1

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance	88	89	90	85.6	82.7
Objective					
Annual Indicator	82.0	80.7	81.8	83.5	82.4
Numerator	37292	36757	35875	33725	33763
Denominator	45490	45552	43846	40397	40974
Data Source		Birth	Birth	Birth	Birth
		Certificate	Certificate	Certificate	Certificate
		OITA	OITA	OITA	OITA
Check this box if you cannot					
report the numerator because					
1.There are fewer than 5					
events over the last year, and					
2.The average number of					
events over the last 3 years is					
fewer than 5 and therefore a					
3-year moving average					
cannot be applied.					
Is the Data Provisional or				Provisional	Provisional
Final?					
	2012	2013	2014	2015	2016
Annual Performance	82.9	83.3	83.8	84.2	84.6
Objective					

### Notes - 2011

Updated data for 2009 and 2010.

Numerator and Denominator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

The annual performance objectives for 2012-2016 were revised.

Unknown/missing values for prenatal care were excluded from analysis.

Unknown data of prenatal care is excluded.

#### Notes - 2010

Updated data for 2008 and 2009.

Numerator and Denominator: Provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

### Notes - 2009

Updated data for 2007 and 2008.

Numerator and Denominator: Data for the analyses were provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Because Vital Statistics (VS) data were not available, estimated data were obtained through trend analyses using the last 9 years (2000-2008) and linear curve estimation regression models. For the methodology used, refer to the Appendix 5.

# a. Last Year's Accomplishments

Routine PNC offers the opportunity to identify potential problems of various kinds, to prevent them or reduce their impact in the health of a pregnant woman and her offspring, and to promote her well being thus affecting positively her family environment. Early PNC is considered one of the most cost effective approaches used in public health to increase the opportunities of the best possible maternal and infant birth outcomes. For that reason, the PRDOH MCAH Program is engaged in promoting it at all levels in the island.

According to preliminary 2010 VS data, 95.4% mothers who had a live birth that year received PNC at anytime during pregnancy. For 2009, it was 97.6%. When comparing 2009 and 2010 results, a 2.3% reduction was observed.

On the other hand, only 83.5% women with a live birth had begun PNC during their first trimester of gestation in 2010, while 81.8% such women did so in 2009. When comparing results from 2009 and 2010, a 2.1% increase was noticed.

In general, although the percent of infants born to pregnant women receiving PNC beginning in the first trimester increased 1.8% when comparing 2007 data (82.0%) with that of 2010 (83.5%), it was not statistically significant (p< 0.05).

No HP 2020 objective for PNC initiation in the first trimester for Puerto Rico has been established. Therefore we are using the HP 2010 established goal of 86%. As seen from data reported above, this objective has not been reached.

Further analysis of VS for 2010 showed that 84.9% women 20 years and older began PNC during their first trimester while only 15.1% women 10-19 years old did so. This age-related gap is observed also in results obtained for 2009 (20 years or older: 84.3%; 10-19 years old: 15.7%). Several potential causes may explain the poor rates of PNC initiation in the first trimester by adolescents who get pregnant, among others, fear of notifying their parents of their condition and the need to get health coverage for PNC services outside of their families' health plan. Concern for pregnant adolescents' wellbeing has continually motivated the MCH Division to direct its efforts to educate and help them get obstetrical health services without delay. Its staff, particularly HVNs, have the responsibility of providing follow up visits to those pregnant adolescents that enter the HV Program to assure that they receive PNC according to the current PRDOH

Guidelines for Preventive Perinatal Services.

During this period, we continued persistent efforts at different population levels to promote access into PNC during the first trimester of pregnancy. For such purposes, HVNs and CHWs across the Island reached 12,512 persons through 760 educational activities on diverse topics related to prenatal health, including the importance of beginning PNC as soon as a woman gets pregnant, as a way of identifying pregnant women, among them adolescents, who lack PNC and assisting them in the admission process. Likewise, 3,774 women in their interconception period, participants of the HV Program, received individual orientations by HVNs that included topics such as the importance of preconception care, the signs and symptoms of being pregnant, beginning PNC as soon as a pregnancy is suspected and family planning, among others.

On the other hand, the "Nido Seguro" Program, within the PR Department of the Family, offered individual orientations on the subjects mentioned above to 392 adolescents either pregnant or in their interconception period who were in substitute homes under DF's custody. Currently, this Program, who was implemented based on the MCH HV Program model, is providing their services in 4 municipalities that lack HVN services from the MCH HV Program.

The TVMEU started a study aimed at comparing the likelihood of having a poor pregnancy outcome with the time when a woman begins PNC, using VS data of 373,714 women who had a live birth or fetal death from 2000 to 2006 and their PNC initiation period. Data analysis will follow.

Table 4a, National Performance Measures Summary Sheet

Activities	Pyram	id Leve	l of Serv	vice
	DHC	ES	PBS	IB
1. Make an annual review of the local vital statistics to observe				Х
the trend in total prenatal care and early prenatal care rates				
among women who deliver in Puerto Rico.				
2. Continue endorsing all efforts to provide health insurance				X
coverage that includes free early and comprehensive prenatal				
care to all pregnant women with incomes 200% below the State				
Poverty Level.				
3. Continue providing activities at community level directed to			Х	
identify pregnant women of all ages who are not receiving				
prenatal care and to help them access PNC services.				
4. Continue promoting preconception care and admission to			Х	
PNC during the first trimester of pregnancy among participants of				
the Home Visiting Program and their family members during				
HVN interventions and at the community setting.				
5. Carry out a study to compare the possibility of having an				X
adverse pregnancy outcome with the time when a woman				
initiates her prenatal care using local vital statistics data.				
6.				
7.				
8.				
9.				
10.				

## b. Current Activities

Data collection concluded for the study to explore the relationship between having poor birth outcomes and the time PNC begins. Premature births, small for gestational age (SGA), LBW, IM, fetal deaths, congenital anomalies, maternal deaths and caesarean sections were analyzed. SGA

(OR =1.2) was significantly associated (p<0.001) with admission to PNC after the first trimester or absence of PNC. LBW (OR = 1.04) was marginally associated (0.10=p=0.05) with this risk factor. While there was a risk between beginning PNC after the first trimester or absence of PNC and developing a congenital anomaly (OR = 1.1) it was not statistically significant (p=0.106).

The MCAH staff continues pursuing that pregnant women enroll in PNC services early during their pregnancy. CHWs and HVNs have continued providing educational activities at community level to detect pregnant women without PNC and help them get these services. Also, all participants of the HV Program in their interconception period have continued receiving individual orientations by HVNs on interconception and prenatal health-related issues, such as the importance to start PNC as soon as they get pregnant.

In Nov 2011, as a means to improve maternal- infant health and to reduce adverse birth results, the Fetal Infant Mortality Review of the MCAH Program offered a symposium on IM where the results of a review of cases from the Ponce and Mayaguez Regions were presented, with the participation of 71 perinatal health providers.

# c. Plan for the Coming Year

The MCAH Program will continue pointing out the importance of beginning prenatal care during the first trimester of pregnancy as a means of assuring the best opportunities for optimal maternal and infant health during and after birth. For that reason, its staff will continue its endeavor to identify pregnant women of all ages who are not enrolled in prenatal care services and to assist them to get the services required.

Preconception health, family planning and early and comprehensive prenatal care will continue being highlighted in educational activities carried out by MCH staff at community level as a means of increasing public consciousness of these maternal health issues.

Prenatal care health providers are a vital component in the efforts to increase the opportunities for women to begin PNC in the first trimester of pregnancy. For that reason, we will continue reinforcing the current policy that requires that they must admit a pregnant woman into PNC as soon as she requests it. Emphasis will also continue on making them aware of their responsibility for educating women of reproductive age under their care on the benefits of planning their pregnancies, the signs and symptoms of being pregnant and to seek PNC services as soon as they suspect a pregnancy is underway.

Results of the study carried out by the TVMEU to connect time of prenatal care initiation with poor pregnancy outcomes will be available at the PRDOH web page for interested individuals, particularly key stakeholders and prenatal health care providers in the island and abroad. Information will also be included in the MCAH Health Status Book to be prepared by the SSDI which will contain the most recent studies on relevant maternal-infant health topics carried out within the MCAH Program.

## **D. State Performance Measures**

State Performance Measure 1: The proportion of women of childbearing age consuming folic acid

Tracking Performance Measures

[0005 400 (2)(2)(11)(11) and 400 (4)(2)(77)(11)]									
Annual Objective	e and Performance Data	2007	2008	2009	2010	2011			

Annual Performance Objective					21
Annual Indicator		21.1	20.4	20.4	20.4
Numerator		384	373	373	374
Denominator		1823	1832	1832	1834
Data Source		ESMIPR	ESMIPR	ESMIPR	ESMIPR
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	22	22.8	23.6	24.4	25.2

#### Notes - 2011

For year 2011, data was provided by the 2010 ESMIPR (PRAMS like survey) from the MCH Program of the PR Department of Health. The annual performance objectives were revised taking in consideration data for 2011.

The annual performance objectives for 2012-2016 were revised.

#### Notes - 2010

For year 2008, data was provided by the 2008 ESMIPR (PRAMS like survey) from the MCH Program of the PR Department of Health. For years 2009 and 2010, data was provided by the 2010 ESMIPR.

## a. Last Year's Accomplishments

Between July 2010 and June 2011, the BDSS participated in 158 community base health fairs with the support of MCAH regional staff, reaching 6,210 individuals. A total of 69,413 copies of culturally sensitive educational materials addressing the benefits of consuming 400mcg of folic acid daily were distributed island wide through health fairs and other educational activities; 12,895 promotional items were also distributed. The BDSS offered 16 presentations in hospitals, local conferences, and universities related to the role of folic acid as a birth defects prevention strategy, reaching 637 health professionals.

The BDSS continued to promote the implementation of the two folic acid educational modules at the public school system in order to increase the level of awareness, knowledge and consumption of folic acid among public school students. The Dept of Education school nurses were trained on how to provide folic acid and birth defects prevention messages. Also, 35 presentations were offered in public schools along the Island, reaching 2,429 middle and high school students.

The BDSS repeated the folic acid cross sectional study among senior high school students from the public school system in order to validate the 2009-2010 results. The 2010-2011 survey had a higher number of schools participating (103 vs. 24) for a far better response rate (48% vs. 11%), and a better representation of the student's population with 6 of the 7 Education Regions participating (51 vs. 12 municipalities represented), where 61.3% of the students were females. When asked if they have heard about folic acid, 80.9% responded affirmatively. Close to 19% of the students took folic acid sometimes and 7.4% took it daily. Regarding knowledge: 71% of the participants stated that the vitamin was for all women 10 to 50 years old or for woman before they get pregnant, and 58.2% knew that folic acid helps for NTD prevention. These results were consistent with the previous study.

The Alliance for Birth Defects Prevention held 4 meetings to develop strategies directed at increasing awareness, knowledge, and daily use of folic acid in target populations. The two folic acid public service announcements developed by the Alliance were posted in You Tube and was watched 126 times. During October 2010, the BDSS celebrated the Folic Acid Awareness Month, for which the PRDOH held a press conference and published a press release that was reported by radio and local TV news. A folic acid and birth defects prevention presentation was offered at 3 university campuses, and MCAH regional staff supported the activity with an educational booth in other 16 campuses. The SISA coordinators conducted folic acid and birth defects prevention

activities at public schools. The Dept of Education wrote a memorandum to exhort the teachers to celebrate this month developing educational activities for their students. One radio interview was conducted, 6 short articles were published in newspapers and 4 in magazines. Two government agencies and the UPR System joined this effort and distributed prevention messages through email to all their employees and students.

Data from ESMIPR 2010 was analyzed; 20.4% of the mothers interviewed, reported to have consumed folic acid daily at least one month prior pregnancy, however, 86.3% reported that some health professional have talked to her about the importance of folic acid consumption. Collaboration was also established with the WIC Program. A brief questionnaire based on the core questions of the BRFSS folic acid module was administered twice during 2010, to all the non-pregnant participants of the Program WIC that visited the Clinics during the study period. A total of 6,628 surveys were completed, for a response rate of 18% in the June intervention and 22% in the November intervention. The results of both interventions were consistent. The mean age of the participants was 26 years old. When asked if they have heard about folic acid, 97-98% responded affirmatively and 30% of the participants reported to take it daily. Regarding folic acid knowledge: 44% of the participants stated that the vitamin was for all women 10 to 50 years old, 31% for woman before they get pregnant, and 62-65% knew that folic acid helps for NTD prevention.

Table 4b, State Performance Measures Summary Sheet

Activities	Pyram	nid Lev	el of Ser	vice
	DHC	ES	PBS	IB
1. Provide trainings on folic acid as a BD prevention strategy to				Х
health care professionals.				
2. Use trained health insurance company personnel to promote			X	
use of daily folic acid among their clientele.				
3. Coordinate focus groups with adolescents to target a folic acid			Х	
campaign for this age group.				
4. Promote the use of the Folic Acid Educational Module among				Х
teachers covering health issues in public schools.				
5. Hold activities to promote use of daily folic acid among the			X	
general public.				
6. Hold the Folic Acid Awareness Month observances in local			X	
university campuses.				
7. Conduct interagency collaborative efforts to promote the use				Х
of daily folic acid in the media.				
8. Hold bimonthly meetings of the State Alliance for Birth Defects				Х
Prevention to develop strategies directed at increasing daily use				
of folic acid.				
9. Evaluate levels of folic acid awareness and daily consumption				Х
among WCBA.				
10. Evaluate the folic acid educational activities.				Х

#### **b.** Current Activities

In collaboration with the BDSS, the Demographic Registry Office is distributing a folic acid brochure targeted to postpartum women to all mothers registering a newborn. The Folic Acid Awareness Month was celebrated in October. The BDSS conducted 157 folic acid educational activities during this month with the support of MCAH regional staff, reaching 5,796 individuals. Two 15 minutes MS Power Point presentations with folic acid messages were developed; one targeted at adolescents and the other targeted at post-partum women. A total of 276 CDs with these presentations were distributed to SISA coordinators, Dept of Education school nurses and Program WIC Clinics to support the promotion of folic acid benefits in their respective educational

activities. One radio interview was also conducted during this month.

In order to gather information about folic acid awareness and use in Puerto Rico, different surveys were conducted during this period. Both, 2011 BRFSS and YRBSS, included folic acid questions. Also, in March 2012 the senior high school students and the WIC Program surveys were conducted. Data compiled from these four surveys is being analyzed. The two focus groups held in collaboration with SISA and the University of Puerto Rico - Cayey Campus are also being analyzed in order to evaluate the adolescents' perception of the folic acid vitamin and birth defects prevention educational brochures and incentives.

### c. Plan for the Coming Year

The BDSS will promote preconceptional care and prevention messages to emphasize the importance of the inclusion of healthy habits such as daily consumption of folic acid in order to help prevent some chronic and degenerative diseases and some birth defects. The BDSS will be distributing culturally sensitive educational material addressing the benefits of consuming 400mcg of folic acid daily, among collaborators and through participation in community base health fairs and related activities. Other folic acid awareness activities will include: public awareness with radio and TV public service announcements, news conferences, press releases, and newspapers ads. New information directed to people of the community regarding the benefits of folic acid use will be posted in the PRDOH webpage. MCH staff will continue offering educational activities for the promotion of daily folic acid use in their educational interventions.

The BDSS in collaboration with the Demographic Registry Office will continue to distribute two brochures, one to parents registering a baby and other to couples seeking a marriage certificate, both of which emphasize the importance of using folic acid. The BDSS will be promoting the use of the folic acid instructional module included in the public schools curriculum at the junior and senior high school level.

In October, the Folic Acid Awareness Day will be celebrated and educational materials and incentives will be distributed at public schools facilities, colleges and universities island-wide. With the help of the SISA Program the BDSS will continue to hold focus groups to evaluate the BDSS educational material and to help the Program develop brochures targeted to adolescents.

The Alliance for Birth Defects Prevention will continue to hold bimonthly meetings to develop strategies directed at increasing daily use of folic acid. The BDSS will continue to promote the collaborative efforts already established with local health insurance companies to have their health care providers help to increase folic acid awareness and actively promote daily folic acid intake among their clientele.

To monitor compliance with folic acid use in WCBA, different data sources will be analyzed. In order to evaluate the BDSS preventive efforts in adolescents the senior high school students' survey will be administered again in 2012-13, at the public school system. Folic acid use and knowledge among non-pregnant women 18-44 years old will be assess through the BRFSS in 2013. The ESMIPR (bi-annual PRAMS like survey) will assess daily folic acid use in a sample of post-partum women, and the WIC Program will be administering again the folic acid questionnaire to all women receiving services at their Clinics. The BDSS educational presentations will be evaluated using a pre and post test to measure gains in participant's knowledge on folic acid.

State Performance Measure 2: The prevalence at birth of neural tube defects (NTD's)

Tracking Performance Measures [Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective					10.2
Annual Indicator		9.4	9.8	11.1	9.0
Numerator		43	44	47	37
Denominator		45675	44843	42250	40974
Data Source		BDSS	BDSS	BDSS	BDSS
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	10.6	10.4	10.2	10	9.8

#### Notes - 2011

The source of the numerator is the BDSS, and the source of the denominator is the Vital Statistics Birth Certificates. The annual performance objectives were revised taking in consideration the updated 2010 NTD prevalence at birth.

The annual performance objectives for 2012-2016 were revised.

#### Notes - 2010

The source of the numerator is the BDSS, and the source of the denominator is the Vital Statistics Birth Certificates.

# a. Last Year's Accomplishments

The BDSS maintains active, population based surveillance for 44 birth defects including NTDs. For the July 2010 - June 2011 period, 11 NTD statistical reports have been prepared for health care professionals, students, hospitals, and other private and public agencies such as: San Jorge Children's Foundation, Early-Head Start, United Way, and the School of Medicine of the University of Puerto Rico, among others. The 2010 annual statistical report which includes 2008 BDSS data and 2008-2009 Newborn Screening Program data was published and distributed to health care professionals. Hard copies of the report were distributed to 1,000 stakeholders, partners and collaborators, while electronic copies were sent by e-mail to all the health care providers of the three leading health care insurance companies of the Island. Also, the report was posted in the following Agencies' websites: PRDOH, the University of Puerto Rico and the Puerto Rico Statistical Institute. BDSS data was also provided for the National Birth Defects Prevention Network (NBDPN) annual report, which was published in the December 2010 issue of the peer review journal "Birth Defects Research Part A: Clinical and Molecular Teratology", and for the CDC's NTD Rapid Ascertainment Project.

BDSS staff made efforts to increase NTDs awareness among health professionals on the topics of preconceptional health, birth defects incidence, prevention, natural history and etiology. A total of 16 lectures were given to 637 health professionals. The BDSS prevention presentations were evaluated using a short form and a pre-post test to measure gains in participant's knowledge/awareness on different aspects of birth defects prevention. The evaluations showed a statistically significant increase in participants knowledge on birth defects prevention strategies from 57% to 86% (p=0.01). The trainings were rated to have an appropriate: duration (97.7%), and educative content (97.7%), and excellent/good accomplishment of learning objectives (100%), organization of the activity (100%), audiovisual materials (100%) and speakers (100%).

Surveillance data has being used to identify at risk populations and develop targeted birth defects prevention activities. The BDSS contacted mothers with an NTD affected pregnancy by telephone to provide information regarding recurrence prevention and available services. Collaboration has been established with the Spina Bifida Association and two other non-profit organizations for referral to services, and to reinforce BDSS efforts on secondary prevention and recurrence of spina bifida and encephalocele.

The Alliance for Birth Defects Prevention held 4 meetings to develop strategies directed at birth

defects prevention. A birth defects prevention website was created with the collaboration of the Birth Defects Prevention Alliance and the EDP College. Two of the leading health insurance companies of the Island included birth defects in their Prevention Plan and are distributing NTDs educational materials in their activities. Several articles regarding NTD prevention were published in major newspapers of the Island. A short article about birth defects surveillance was published in the Puerto Rican Magazine of Medicine and Public Health (Sistema de Vigilancia de Defectos Congénitos - Revista Puertorriqueña de Medicina y Salud Pública 2011; XXV:73-75).

The BDSS celebrated the National Birth Defects Prevention Month. The PRDOH held a press conference and published a press release that was reported by radio and local TV news programs. One TV and 2 radio interviews were conducted, and 4 short articles were published in newspapers. Also, one health insurance company published a birth defects awareness article in their January bulletin to commercial clients. One 4-page birth defects prevention supplement was published in the newspaper of major circulation in the Island and an 8-page birth defects prevention supplement was published in the second newspaper of major circulation. Two birth defects prevention conferences (80 attendants each) were held at the UPR-Cayey Campus; the students prepared an educational table and an exhibition in the library with birth defects prevention messages. The NBDPN birth defects prevention posters were distributed to all birthing hospitals, WIC clinics, university campuses, non-profit agencies and health insurance companies.

Table 4b, State Performance Measures Summary Sheet

Activities	Pyram	id Leve	el of Ser	vice
	DHC	ES	PBS	IB
Increase awareness of NTD prevention strategies among				Х
primary care providers.				
2. Use trained health insurance company personnel to promote			Х	
NTD prevention strategies among their clientele.				
3. Hold activities to increase awareness of birth defects and			Х	
strategies to prevent them among WCBA.				
4. Develop and distribute culturally sensitive educational			X	
materials to create awareness of the association between				
diabetes and obesity to NTD.				
5. Coordinate Birth Defects Prevention Month activities.				Х
6. Offer NTD recurrence prevention counseling & coordination of	Х	Х		
services to affected families.				
7. Continue interagency collaborative efforts to promote NTD				Х
prevention strategies in the media.				
8. Conduct bimonthly meetings with the State Alliance for Birth				Х
Defects Prevention to develop strategies directed at BD				
prevention.				
9. Conduct active birth defects surveillance to determine the				Х
NTD prevalence at birth.				
10. Evaluate NTD time trends.				X

#### **b.** Current Activities

The BDSS maintains active, population based surveillance for NTDs. Three birth defects factsheets for parents were developed on the following NTDs: spina bifida, anencephaly, and encephalocele. Also, the NTD recurrence prevention brochure was updated. The 2012 annual statistical report, which includes 2010 BDSS data will be published and distributed to health care professionals. The Demographic Registry Office, in collaboration with the BDSS, is distributing to couples seeking a marriage certificate a brochure titled "How to Prevent Birth Defects".

The BDSS celebrated the National Birth Defects Prevention Month. The PRDOH published a

press release that was reported by radio and local TV news programs. Two TV and radio interviews were conducted, and 2 short articles were published in a health magazine. Also, one health insurance company published a birth defects awareness article in their January bulletin to commercial clients. Three birth defects prevention conferences (90 attendants each) were held at the UPR-Cayey Campus; the students prepared an educational table and an exhibition in the library with birth defects prevention messages.

Collaboration was established with the PRDOH and CDC Diabetes Programs. The BDSS is currently evaluating two CDC Spanish brochures of diabetes and pregnancy. New information directed to the general public regarding diabetes and birth defects prevention will be posted in the PRDOH webpage.

### c. Plan for the Coming Year

The BDSS will continue with the active population based surveillance for 44 birth defects, as required by Law 351 of September, 2004. NTD time trends will be analyze and publish in the BDSS and National Birth Defects Prevention Network (NBDPN) annual reports, and in journals and magazines articles. Surveillance data will continue to be used to identify at risk populations and developed targeted birth defects prevention activities. The BDSS social worker will contact mothers with an NTD affected pregnancy by telephone to provide oral and written information regarding recurrence prevention and available services. Also, a questionnaire for all parents identified with affected pregnancies will be developed in order to maintain a surveillance of risk factors associated to birth defects.

The Program will continue offering educational activities. Efforts toward increasing the level of awareness among birthing hospitals staff and health care providers of their need to promote daily folic acid intake will also continue. In addition, health care providers will be trained to increase their knowledge regarding additional birth defect prevention strategies through activities occurring island wide in hospitals, local conferences, and universities. All educational activities will be evaluated using a pre and post test to measure gains in participant's knowledge/awareness. To encourage professionals' participation, most trainings are approved for CME credits.

Besides folic acid use, the birth defects prevention campaign will also focus on prevention of diabetes, obesity and medication use, three important risk factors associated with NTDs. The BDSS will develop a module on diabetes, obesity, medication use and birth defects with CME credits for health professionals. The new diabetes brochures and the ones regarding the importance of daily folic acid use will be distributed through participation in health fairs at the community level, schools, universities, and public and private agencies. MCAH staff will also continue offering educational activities for the promotion of daily folic acid use among other prevention messages. New information directed to the general public regarding birth defects prevention will be posted in the PRDOH and PR Alliance for Birth Defects Prevention webpages.

The BDSS will continue to promote the collaborative efforts already established with local health insurance companies in order to have their health care providers help increase awareness on folic acid and other birth defects prevention strategies and actively promote daily folic acid intake among their clientele. The national birth defects prevention month will be celebrated in January 2013 with a series of activities. The BDSS will continue supporting the PR Alliance for Birth Defects Prevention in their collaborative efforts with other agencies and stakeholders to develop additional strategies to prevent NTD's.

**State Performance Measure 3:** The degree to which the Puerto Rico Maternal, Child and Adolescent Program collect, analyze, and disseminates findings from data pertinent to ongoing target population health needs assessment.

### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance Objective					62
Annual Indicator				57.1	66.7
Numerator				12	14
Denominator				21	21
Data Source				Checklist for	Checklist for
				SPM #3	SPM #3
Is the Data Provisional or Final?				Final	Final
	2012	2013	2014	2015	2016
Annual Performance Objective	71	81	91	100	100

#### Notes - 2011

Checklist for State Performance Measure #3: Seven Indicators Documenting Data Collection, Analysis and Dissemination for Ongoing Needs Assessment, PR MCH Program (see Table IV-1 Checklist for SPM 03 FY 2012).

#### Notes - 2010

Checklist for State Performance Measure #3: Seven Indicators Documenting Data Collection, Analysis and Dissemination for Ongoing Needs Assessment, PR MCH Program (see Table IV-1 Checklist for SPM 03).

#### a. Last Year's Accomplishments

Findings of the Needs Assessment suggested the right path to the development research and surveillance systems. The SPM #3 was established to reach optimal research and evaluation activities. It monitors a core of seven research and surveillance initiatives, which produce essential information regarding woman and child health (including children with special health care needs).

#### 1. Birth Defects Surveillance System (BDSS)

During 2010-2011, the BDSS continued with its active, population-based surveillance for 44 major birth defects. All PR birthing hospitals were visited weekly by BDSS abstractors. Approximately, 10% of cases were identified prenatally through the University OB High Risk Clinic and two perinatologists' private offices. The BDSS reviewed 100% of the abstraction forms to evaluate the diagnostic information collected by abstractors. Data linkages with Vital Statistics Records (VSR) (live births, fetal deaths and infant mortality) 2009 databases, the Down Syndrome Foundation of PR, three health insurance companies and ASES 2007-2009 datasets were performed to improve BDSS completeness. The BDSS continues receiving a quarterly report of Genzyme Laboratory's prenatal diagnostic data positive for chromosomal defects. This data is very valuable and had contributed to confirm suspected cases of trisomies 13, 18 and 21, and to classify these cases further (translocation, mosaics or non-disjunction). In March 2011, the BDSS attended the NBDPN Annual Meeting and presented a poster entitled Epidemiologic and Clinical Profile of Hypospadias in Puerto Rico, 2007-2009. This poster received an Award by the Pediatric Residency Program of the University of Puerto Rico-Medical Sciences Campus School of Medicine in June 2011.

#### 2. Maternal and Infant Health Survey (ESMIPR, Spanish acronym)

The 2010 data was debugged and analyzed. A new questionnaire was developed to collect the data for 2012. Committees from PR-MCAH choose a several question from PRAMS's Phase 6 Questionnaire: Topic Reference. This questionnaire were revised and adapted to the needs of our population. Then a pilot study was carry out to validate the questionnaire. In the meantime we submitted the ESMIPR for the Institutional Review Boards, (IRB) to assure compliance with institutional ethical standards and federal regulations, and that the rights of human subjects are

protected. Training about the new questionnaire and the aspect related with the data collection was provided to regional MCAH personnel.

- 3. Maternal Mortality Surveillance System (SiVEMMa, Spanish acronym) During 2011, six hospital records were obtained and analyzed of identified maternal death for 2007. Three of the cases were revised by the SiVEMMa Committee, and the relation between the death and the pregnancy were established. Recommendations directed to reduce maternal mortality were developed. Also, a draft report regarding SiVEMMa findings from 2002 to 2007 period was developed.
- 4. Fetal and Infant Mortality Review (FIMR) Committee
  During FY 2010-11, the FIMR Committee met on 8 occasions to discuss 19 cases from the Ponce
  Region in order to complete the review of all the cases from the area in preparation for the
  presentation of the consolidated findings and recommendations during the tenth anniversary
  celebration of the Healthy Start Project in PR.

An attachment is included in this section. IVD\_SPM3\_Last Year's Accomplishments

Table 4b, State Performance Measures Summary Sheet

Activities	Pyramid Level of Service				
	DHC	ES	PBS	IB	
The BDSS continued with its active, population-based				Х	
surveillance for 44 major birth defects. All PR birthing hospitals were visited weekly by BDSS abstractors.					
2. A poster entitled Epidemiologic and Clinical Profile of Hypospadias in PR, 2007-2009 was presented at the National Birth Defects Prevention Network, Pediatric Residency Program of the UPR-MSC School of Medicine in June 2011.				Х	
3. A new questionnaire for the Maternal and Infant Health Survey (ESMIPR, Spanish acronym) was developed and pilot tested.				Х	
4. Maternal Mortality Surveillance System (SiVEMMa, Spanish acronym) continues the cases revision for year 2007, and begun a new surveillance process for year 2008.				X	
5. The Fetal and Infant Mortality Review (FIMR) Committee met on 8 occasions to discuss 19 cases from the Ponce Region.				Х	
6.					
7.					
8.					
9.					
10.					

#### b. Current Activities

The BDSS maintains active, population based surveillance for 44 major birth defects. Since July 2011, 9 statistical reports have been prepared for health care professionals, students, hospitals, and other private and public agencies. The 2012 report which includes 2010 BDSS data and 2010-2011 Newborn Screening Program data has been developed and will be distributed. In March 2012, the BDSS attended the NBDPN Annual Meeting and presented a poster entitled Evaluation of Trends in Prevalence at Birth of Down Syndrome in Puerto Rico. 2001-2009.

MCAH is currently collecting the data trough 29 hospitals to a sample of 1,775 post partum women who had a live singleton birth. The final report for the ESMIPR 2010 was reviewed. The EPI-INFO form to enter the data is under development.

SiVEMMa identified 26 potential maternal deaths for year 2008 as a result of the electronic record

linkage. Also, the remaining 2007 cases with hospital record information will be reviewed. A journal article from the 2002 to 2007 period SiVEMMa findings draft report is being developed.

The FIMR Committee met on 3 occasions in order to complete the revision, the report and recommendations of all 27 infant deaths from the Ponce Region were presented to health care professional on November 19, 2011. A total of 70 persons participated in the activity. Topics included were the FIMR Report, Preconception Care, infant death from the providers' perspective and new management trends in neonatology.

# c. Plan for the Coming Year

The BDSS Program will continue weekly visits to 42 birthing hospitals, 4 pediatric hospitals, and 1 cardiovascular hospital to survey the patient register logs from different units, and areas to identify babies with potential birth defects. Clinical review to 100% of BDSS abstract forms to evaluate diagnostic information collected by abstractors will continue. Record linkages will continue to be performed with VSR, health insurance companies, and other agencies in order to improve data completeness. In addition, the BDSS plan to maintain its efforts toward establishing new partnerships with entities that may help identify additional data sources and thus increase the potential to identify all birth defects cases included in the surveillance system. An annual surveillance result report will continue to be disseminated in order to increase awareness of birth defects prevention measures among the general population and health care professionals. Efforts to reinforce PR Alliance for Birth Defects Prevention membership will continue. Potential collaborators and stakeholders will be identified and invited to become new members. Families with affected pregnancies/babies with birth defects other than congenital heart defects will be contact by the BDSS social worker to receive counseling, orientation and/or coordination of services with health specialists.

The ESMIPR data will be processed. The Telephone Survey will be carrying out to get data about breastfeeding and the 6 month among other information.

SiVEMMa will continue Committee meetings to finish 2007 cases revision. A journal article regarding 2002 to 2007 surveillance period will be completed and published. The revision process for 2008 cases will begin with the matching of births, deaths and fetal deaths certificates in order to determine the final number of maternal deaths. Hospitals where death and birth events occurred will be contacted for record revision.

The FIMR Committee will be reviewing the process and formats used to collect data. In addition, findings and recommendations of these findings will be shared with the Community Action Group located in the Ponce Region and other groups interested in reducing Infant Mortality. The Community Action Group will be responsible for analyzing the Committees findings and recommendations and for developing the action plan that includes activities and strategies needed to improve health status of mothers and their infants.

**State Performance Measure 4:** The percent of late preterm births (34-36 weeks of gestation).

# **Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance					13.3
Objective					
Annual Indicator		14.7	13.4	12.5	12.5

Numerator		6696	6005	5287	5122
Denominator		45675	44780	42250	40974
Data Source		Birth	Birth	Birth	Birth
		Certificate	Certificate	Certificate	Certificate
		OITA	OITA	OITA	OITA
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	12.4	12.3	12.2	12.1	12

#### Notes - 2011

Updated data for 2009 and 2010.

Numerator and Denominator: data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2010 was calculated to estimate 2011 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

The annual performance objectives for 2012-2016 were revised.

Unknown/missing values for gestational age were excluded from analysis.

#### Notes - 2010

Numerator: Data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Denominator: Data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health.

Average Annual Percent Change (AAPC) between 2000 and 2009 was calculated to estimate 2010 data, Vital Statistics (VS) data was not available for this year, see Appendix 5.

## a. Last Year's Accomplishments

Preterm births are an increasing problem (16.5% in 2010, preliminary data). Most preterm births are between 34 to 36 weeks of gestation (12.5% in 2010). Late preterm babies remain at higher risk than full-term babies for newborn health problems, including breathing and feeding problems, difficulties regulating body temperature, and jaundice. Because their brain development is not complete, these babies may be at increased risk for learning and behavioral problems.

As mentioned before, the classification of cause of death in PR is now performed by the National Center for Health Statistics (NCHS). An analysis of the new databases (2000 to 2010) with the NCHS classification, reports that the first cause of infant mortality is congenital malformations, deformations and chromosomal abnormalities and not disorders related to short gestation and low birth weight as reported in the last decade.

However, premature births are highly incident. PR VS for 2009 reports that 76% of infant deaths were premature babies (68% early preterm and 8% late preterm). The first cause of death for early preterm babies was related to short gestation and low birth weight (39%) and for late preterm congenital malformations, deformations and chromosomal abnormalities (71%).

During FY 2010-2011, the Prematurity Taskforce (PRPT) organized by the PR Chapter of March of Dimes (MOD) planned several activities. Starting with a Symposium of Strategies for the Prevention of Premature Births celebrated in August 2010 with Dr. Charles Lockwood from Yale University as the main presenter. November is the month of Prematurity Awareness, and

therefore started with a press conference, as well as a ceremony in a hospital in San Juan launching the awareness campaign and a media tour presenting the MOD Prematurity Report Card for PR. A Public Service Announcement (PSA) called "Piece of Art" was broadcast throughout 2010 in Univision PR.

The MCAH Program Prenatal Course for FY 2010-2011 offered 100 sessions of these courses reaching 2,103 participants. Aside from the Prenatal Course, 3,122 participants received other types of orientations of prenatal care in 248 sessions.

The Prenatal Care Card (PNC Card), developed by the MCAH Program to ensure that the pregnant women have with them at all times information regarding their PNC, was submitted FY 2009-2010 to the ASES to be distributed to all the insurance companies that offer services to GIP participants with the objective of standardizing this information among this population. For FY 2010-2011 the PNC Card was submitted to insurance companies such as Humana and Medical Card System (MCS).

By November and December 2010 the Healthy Start Program (HS) celebrated the First Summit of Healthy Start Consortium impacting 218 HS participants. Both summits were dedicated to premature births. The signs and symptoms of premature births, the short and long term consequences of premature births, how to prevent them and statistics of premature births in Puerto Rico and by municipality were widely presented. Stakeholders such as the Police Department, major Private Insurance companies, Congenital Defects Surveillance System, WIC among others were part of these summits.

HVNs routinely assess their clients for risks associated with premature delivery. They provide appropriate education/counseling regarding the signs and symptoms associated with premature labor and provide them information regarding the closest birthing facility with Level III perinatal services.

The MCAH Community Health Workers (CWHs) distributed educational material and offered 111 group activities on the subject of signs and symptoms of premature labor to 1,308 participants across the Island during FY 2010-2011. Likewise, orientations regarding where to seek emergency assistance in case premature labor ensues were offered during these activities.

**Table 4b, State Performance Measures Summary Sheet** 

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
1. Educate pregnant women on the risk of preterm delivery and where to go in case of an emergency.			Х			
2. Disseminate educational materials explaining signs and symptoms of PTB.			Х			
3. Collaborate with the PR MOD Prematurity Taskforce.				Х		
4. Promote the use of a prenatal card with pertinent information to be carried at all times by pregnant women.			Х			
5.						
6.						
7.						
8.						
9.						
10.						

#### **b.** Current Activities

According to the AAPC for 2011, 12.5% of births were late preterm.

The specific causes of preterm delivery in PR are unclear. As observed in a PR MOD PRPT study (2008) many of the risk factors for premature births are not identified as responsible of the high rates in PR. The MCAH Program performed as similar retrospective analysis using birth and fetal deaths certificates. A total of 373,714 live births and fetal deaths from 2000 to 2006 were analyzed. Findings from this study are consistent with the one performed by the MOD PRPT, none of the usual risk factors for premature births were statistically significant. However, considering this other factors: being uninsured, having a previous C/S, induced labor and augmentation of labor were associated with premature births (p<0.05).

The MCAH Program continues actively participating at the MOD PRPT. During August of 2011 MOD celebrated a Summit of Premature Births at a hospital in Cayey aimed at recognizing and rewarding this hospital because of their low rate of C/S and preterm births. For the Premature Awareness Month (November) a press conference, a ceremony at a Hospital in San Juan and a media tour presenting the MOD Prematurity Report Card for PR were celebrated. A PSA called "Stronger and Healthier Babies" was aired during 2011 at Univision PR.

# c. Plan for the Coming Year

According to literature review, preterm birth is associated with a number of risk factors, including the use of alcohol, tobacco, or other drugs during pregnancy and low pre-pregnancy weight or low weight gain during pregnancy, vaginal infection, oral health, previous premature births and domestic violence. However, thru VS data is not possible to identify which risk factors are responsible of premature births in PR.

The HS Program will study the impact of vaginal and urinary tract infections in 884 HS participants in the project during 2006. A linkage between HS records and 2006 birth certificates is being performed. Results for this study are expected to be complete for the next year.

Participants from the HVP form the Regions of Mayaguez and Aguadilla are taking the Prenatal Course designed by the MCH Program. An analysis to compare pregnancy outcomes between women who took the prenatal courses and those who did not take it will be performed. Pregnancy outcomes of these women will be provided by the HVP. Since an amount of women that take the prenatal coursers are not HVP participants, an approach to the WIC offices of the Mayaguez Region will be coordinated to explore the possibility to obtain information such as pregnancy outcomes of these women. Also a pretest and posttest will be administered before and after the prenatal courses. This analysis will help to asses if this course and the HVP program have a positive impact on pregnancy outcomes.

The ESMIPR questionnaire was revised during 2011. New questions were added with the objective extending the information for more investigation in the maternal and child health. Currently ESMPR 2012 is in progress. Once is finished this database will be used to identify risk factors for premature births, including those that couldn't be analyzed using the VS database. These risk factors are BMI, urinary tract and vaginal infection, chronic diseases, previous premature births, previous LBW infants, previous infant death and fetal death, tobacco use, alcohol use, and drug use before pregnancy and during pregnancy, domestic violence, maternal depression, oral health, chronic diseases, among others.

**State Performance Measure 5:** The rate per 100,000 of emergency room visits due to all unintentional injuries among children aged 1 to 14 years.

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective	2007	2008	2009	2010	2011
and Performance					
Data					
Annual Performance					8908.7
Objective					
Annual Indicator				8,998.7	14,803.1
Numerator				69126	104791
Denominator				768180	707898
Data Source				ASES and Major	Health Insurance
				Private Health	Commissioner and
				Insurance	US Census
				Companies	
Is the Data				Provisional	Provisional
Provisional or Final?					
	2012	2013	2014	2015	2016
Annual Performance	8819.6	8731.4	8644.1	8557.7	8471.7
Objective					

#### Notes - 2011

The MCH Program requests the number of unduplicated cases of unintentional injuries (ICD-9: E800-E999) in emergency rooms to the Health Insurance Commissioner (HICO).

Numerator: Number of children who visited ER due to unintentional injuries as reported by HICO.

Denominator: US Census Bureau, 2011.

#### Notes - 2010

Data for this State Performance Measure will be acquired directly from every private insurance company that offers services in Puerto Rico, as well as the Puerto Rico Health Insurance Administration (ASES). The MCH Program requests the number of unduplicated cases of unintentional injuries (ICD-9: E800-E999) in emergency rooms.

Numerator: Health Insurance Administration (ASES), 2010 and 5 Major Private Health Insurance companies in PR, 2010 (Humana Inc., Triple S, MCS, MAPFRE and First Medical).

Denominator: US Census Bureau, 2010.

# a. Last Year's Accomplishments

This performance measure was selected for inclusion as one of the state performance measures upon completion of the 2010 PR MCAH Program Needs Assessment. Criteria used for selection of this state performance measure were: extent/magnitude of the health problem, severity of the consequences, resources availability, public acceptability and the identification of feasible strategies and activities that could be implemented to achieve a reduction in Emergency Rooms (ER) visits due to unintentional injuries.

Unintentional injuries represent the first cause of death among the pediatric population aged 1 to 14 years. According to VS for 2000, death rate due to unintentional injuries was 4.9/100,000 in children 1 to 14 years of age. According to 2009 VS preliminary data this rate dropped 59.2% (2/100,000). Unintentional injuries are also associated with significant morbidity. Survivors frequently have sequela that impact their health and quality of life for the rest of their lives. It is estimated for each unintentional injury related deaths there are 40 hospitalizations, 1,120 emergency room visits and 1,600 physician's office's visits occurs.

Information regarding ER visits for treatment of unintentional injuries in the 1-14 age group is very limited since PR does not currently have a system in place to record this data. Information is

being gathered from local health insurance companies by the Insurance Commissioner.

The Emergency Medical Services for Children (EMSC) Project and its Advisory Council are working to improve the emergency response infrastructure in Puerto Rico. Its efforts are concentrated in several n areas. Among them to insure that the emergency room facilities and ambulances have the equipment needed to provide services to children according to their age, weight and stature by promoting the use of the Broselow tape. To achieve this goal the project provided trainings to 22 facilities that offer emergency room services in order to increase enhance their awareness of the required equipment and medications minors need and train them in the use of the Broselow tape.

The MCAH Program gathers information regarding other nonfatal injuries in children aged 14 years and younger from sources such as the PR Poison Control Center (PCC). Their 2011 report included information regarding type, intentionality and lethality of the exposure. According to the PCC, 2,554 (31%) of the calls received were related to exposures to potentially toxic substances in children 6 years of age and under. Among the substances to which this group was most frequently exposed were: household cleaning products, plaguicides and insecticides, analgesics, silica gel and preparations for cold and cough. No poison related deaths were reported in this age group.

The CHWs offered 737 group activities related to unintentional injuries, such as appropriate toys, unintentional injuries and shaken baby syndrome prevention and use of seat belt and car seats, to 11,119 participants across the Island during FY 2010-2011. During these activities educational material, concerning these topics, were distributed.

Table 4b, State Performance Measures Summary Sheet

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
1. Conduct studies to define epidemiologically the children who				Х		
receive emergency room services in PR.						
2. Provide educational activities at the community level in order			Х			
to promote the appropriate use of seat belt and car seats,						
promote purchase of safe toys and prevent poisonings and						
choking and Shaken Baby Syndrome.						
3. Collaborate with EMSC Project efforts to establish a well				Х		
coordinated, well equipped and up to date Emergency Response						
System that complies with the latest recommendations.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

#### **b.** Current Activities

According to the Insurance Commissioner in 2011, 104,791 children 1 to 14 years old visited the ER in PR due to unintentional injuries. This represents a rate of 14,803 per 100,000.

MCAH staff is actively involved with Advisory committee efforts to organize local emergency response efforts to insure they are locally available, well coordinated, adequate and appropriate for their age group and follow current guidelines and best practices. Efforts to evaluate the effectiveness of the trainings provided to the 22 facilities that provide ER services is underway.

Barriers to compliance with current guidelines and the use of the Broselow tape are expected to be identified and corrective measures taken prior to replicating the efforts to the remaining facilities.

A collaborative effort with the EMSC Project, Pediatric Residents, allowed the HSP to offer 4 Participant Meetings that were attended by a total of 395 persons. The main focus of the activities was the prevention of unintentional injuries.

The HVN continue to provide information and distribute educational materials directed at reducing unintentional injuries.

The Child Abuse Prevention Coalition has launched an initiative to reduce cases of the Shaken Baby Syndrome. They have distributed DVD to all of WIC PR clinics. They include testimonials from parents who experienced either a death or severe neurological sequel in their children due to SBS and provides strategies on how to prevent them.

#### c. Plan for the Coming Year

MCH personnel will continue to provide to the community educational activities related with the prevention of unintentional injuries in the pediatric population. These activities will focus on the importance of correctly installing and using car seats every time children travel in a motor vehicle to promote compliance with, and enforcement of, laws that requires children be restrained while riding a car; purchasing and gifting safety toys, basic first aid measures and shaken baby syndrome and poison prevention among others. MCH staff will receive a refresher course on how to correctly install and inspect car seats and the newly revised car safety recommendations published by the AAP and NHSTA.

The PR MCH Program will continue monitoring the non fatal injuries in the pediatric population requesting annually to the ASES and the Private Health Insurance Companies in PR, the number of children (1-14 years of age) with claims of emergency room visits due to unintentional injuries. Several options study alternatives are being considered that would help define the epidemiological characteristics of those children whose injuries result in a visit to the ER. The results of the analysis of the database from the ACAA of nonfatal motor vehicle collisions will be shared with regional staff to make them aware of regional variations that need to be addressed.

Effort to reconvene all the agencies involved in injury prevention and forming an Unintentional Injury Prevention Committee will be undertaken. We will continue to endorse efforts led by the EMSC Project to establish an emergency response system that is well equipped and qualified to manage pediatric emergencies in case there is a large scale disaster.

Communications with the PRDOH Webmaster will begin in order to start posting injury prevention messages in the PRDOH webpage.

State Performance Measure 6: The number of preschool children who present behavioral problems.

# Tracking Performance Measures

Annual Objective and Performance Data	2007	2008	2009	2010	2011
Annual Performance Objective					11.1
Annual Indicator		4.4	6.1	11.4	6.5
Numerator		1093	1227	2011	1270

Denominator		24812	20259	17587	19475
Data Source		Head	Head	Head Start	Head Start
		Start	Start		
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
	2012	2013	2014	2015	2010

#### Notes - 2011

Numerator: Children enrolled in Head Start (First Semester School Year: 2011-2012) reported to have conduct problems or ADHD.

Denominator: Children enrolled in Head Start (School Year: 2011-2012) reported with any condition.

#### Notes - 2010

Numerator: Children enrolled in Head Start (School Year: 2009-2010) reported to have conduct problems or ADHD.

Denominator: Children enrolled in Head Start (School Year: 2009-2010) reported with any condition.

#### a. Last Year's Accomplishments

Information related with children health conditions, insurance coverage and enrollment were collected through an instrument developed by the MCAH Program targeted at the Head Start Program staff.

Several conditions such as behavioral problems and ADHD as well as conditions related to mental health collected through Ages and Stages Questionnaire (ASQ) were presented in this performance measure.

During the first semester of the school year 2011-2012, Head Start Program identified about 6.5% (1,270 of 19,475) children with behavioral or ADHD problems: 5.9% (1, 150) children with behavioral problems and 0.6% (120) children with ADHD. Moreover, about 2,651 children were referred for evaluation after the administration of the ASQ.

According to the APS, the mental health services provider for GIP patients, a total of 3,793 children between the ages of 2 to 5 years received treatment during the calendar year 2011. About 68.2% were male and 38.1% females. The most common diagnoses in this population were: Attention-Deficit/Hyperactivity Disorder (61%); Attention - Deficit / Hyperactivity Disorder Predominantly Inattentive Type (6%); Separation Anxiety Disorder (5%); Disorder Anxiety NOS (5%) and Autistic Disorder (4%).

Also, private insurance companies in PR reported that 3,357 children from 0 to 4 y/o were diagnosed with mental health conditions.

During calendar year 2011 the Home Visiting Program administrated about 1,726 ASQ to children served by this Program. Seventy of these children were referred for an evaluation to Early Intervention Program, Pediatricians or Pediatric Centers. Of these referrals, 47% were related to communication delay (speech and language), 24% were multiple delays, 23% were gross and fine motor delays, 4% were genetics conditions and 2% were not identified.

In order to empower the Home Visiting Participants and other parents, MCAH distributed during FY 2010-2011 about 58,000 brochures related to the promotion of healthy social and emotional development of the children. Some of these topics were: Changes in childhood from birth to age three, 10 Parenting Tips, Being a Good Father, Child Discipline, Child Abuse, Parenting Skills.

Also MCAH sponsored 1,431 educational activities reaching 28,551 people on the following topics: self esteem, effective communication, growth and development, parenting skills, dealing with conflict, appropriate toys according to the child age, childbearing, responsible parenthood and the impact of violence on children. The ASSMCA sponsored a Parents Congress to train 40 parents about parenting skills and violence prevention.

**Table 4b. State Performance Measures Summary Sheet** 

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
1. Monitor perinatal and early childhood mental health status.				Х		
2. Educate providers and public at large on topics such as child abuse, parenting skills, perinatal depression, self-esteem and alcohol and drug abuse, among others.			X			
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

#### b. Current Activities

During 2012, MCAH continues the promotion of educational activities and the distribution of educational materials to foster parents nurturing skills, social emotional competence, and early identification and referral. CHW's continue providing educational activities on topics related to child abuse, parenting skills, perinatal depression, self-esteem and alcohol and drug abuse, among others.

The MCAH Program is establishing collaborative efforts with entities such as Escape Program, ASSMCA, Head Start, and Family Department in order to offer educational activities to promote the socio-emotional health during early childhood. The Healthy Start Participants' Committees continue carrying out educational activities in their communities to support parent's skills and strategies for nurturing children. Also, HVNs' and CHW's are being trained about parenting skills by PR Healthy Start Social Worker.

The PRDOH established the Alliance for Child Abuse Prevention, to develop different strategies to prevent child abuse, early identification and referrals to the authorities. This is a multidisciplinary group composed by nonprofit organizations, PR Department of Family, Universities, Public and Private Hospitals, Center for Disease Control, MCAH and College of Physicians and Surgeons of Puerto Rico. An educational campaign to prevent the shaken baby syndrome is underway targeted at the general public.

#### c. Plan for the Coming Year

HVN's and CHW's Staff will continue administrating the Ages and Stages Questionnaires. A seminar of ASQ Socio-emotional (ASQ-SE) instrument will be offered to the HVP staff by the Institute of Developmental Disability from the Graduated School of Public Health. The ASQ-SE will be administered to the HVPP. Staff will continue carrying out educational activities and distributing brochures about socio-emotional development.

Home Visiting Nurses will receive additional trainings on how to help parents to identify normal

early childhood socio-emotional development and how to promptly identify signs and symptoms that may be mental disorders precursors.

PR Healthy Stat Project will sponsored four encounter of participants committees at the project impact zone. The topic of these activities will be "Herramientas para una Crianza Saludable" (Tools for Raising Children in a Healthy Way). The topics around these activities will be "Make your child the better project of your life", Healthy communications skills, Bounding development, Helping children to identify their emotion and manage it, and parent stress management.

We will establish links and collaborative efforts with other government agencies, non government entities and professional organizations that are already providing mental health services to this population group or are interested in working to promote healthy socio-emotional development of children.

**State Performance Measure 7:** The degree to which selected organizations incorporate the Positive Youth Development Model (PYDM) in the services provided to adolescents.

# Tracking Performance Measures

	9	_	-			
[Secs 485	(2)(2)	(B)(iii)	and	486	(a)(2)(A	()(iii)1

Annual Objective and	2007	2008	2009	2010	2011
Performance Data					
Annual Performance Objective					75
Annual Indicator				70.8	70.8
Numerator				17	17
Denominator				24	24
Data Source				Checklist for SPM	Checklist for SPM
				#7	#7
Is the Data Provisional or Final?				Provisional	Provisional
	2012	2013	2014	2015	2016
Annual Performance Objective	75	83	92	100	100

#### Notes - 2011

Checklist for State Performance Measure #7: Eight Characteristics documenting the Positive Youth Development Model (PYDM) implementation in Naranjito Adolescent Program (NAP), PR MCH Program (see Table IV-2 Checklist for SPM 07).

### Notes - 2010

Checklist for State Performance Measure #7: Eight Characteristics Documenting Youth Development Model Implementation in Naranjito Adolescent Program (NAP), PR MCH Program (see Table IV-2 Checklist for SPM 07).

#### a. Last Year's Accomplishments

PYDM continues to be the MCAH approach to promote youth health and well-being and to prevent teen's high risk behaviors. The MCAH Comprehensive Adolescent Health Program (SISA in Spanish) continued the PYDM based SISA Youth Health Promoters (YHP) Project in 25 public middle schools capacitating 333 (12-14 y/o) teens to become health promoters to their peers, family and community. The YHP demonstration project in the Girls' Social Treatment Center (juvenile institution) in Ponce's included PYDM in the approach to work with the fifteen (15) girls that became health promoters and developed activities to reach their peers on health and wellness themes.

MCAH contracted the Naranjito Adolescent Program, Inc. (NAP), a non for profit community-based organization, to continue implementing the pilot project to promote PYDM in their services to the adolescent population and to increase PYDM knowledge and initiatives in Naranjito

municipality's youth serving entities. During FY 2010-2011 the NAP's Youth Positive Development Model Project (YPDMP) Coordinator provided information, capacity building workshops and materials to promote PYDM agencies and organizations and to promote the integration of adolescents into the organization's delivery service activities. A total of 164 activities reached 331 adults and 1,492 youths.

Steps were taken to develop the evaluation plan to assess the degree to which selected organizations incorporate PYDM in the services provided to adolescents. A culturally appropriate instrument was developed to measure the extent the NAP staff adopt the PYDM. NAP staff was interviewed to assess the adoption of eight (8) PYDM fundamentals or principles in their organization and the services they provide directed to Naranjito's youth population. The results of the interviews were collected to be analyzed.

The PRDOH was awarded funds to implement Abstinence Education Program (AEP) and Personal Responsibility Education Program (PREP) in Puerto Rico. The MCAH monitored the implementation of the approved Plans for both proposals. The Evidence Based Programs (EBP) selected to be offered in the selected municipalities for both initiatives (south eastern municipalities with high indices of need) has PYDM fundamental criteria. AEP used Chicago (C4) EBP "Parenting Education Program" (CRIANZA, in Spanish) to reach around 500 parents to 10-12 y/o in the selected municipalities during 2010-2011. The AEP youth initiative selected is EB PYD Adult Identity Mentoring Program (AIM). PREP selected EBP ¡Cuídate!, ¡Cuídalos! and Photo Voice in the integrated Plan to work with parents, youths and community.

An attachment is included in this section. IVD SPM7 Last Year's Accomplishments

Table 4b, State Performance Measures Summary Sheet

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
1. PYDM approach in MCAH Projects (SISA YHPP in public			Х			
middle schools and YHP demo project in JJ) continued in the						
work with youths.						
2. Naranjito Adolescent Program (NAP) provided multiple			Х			
approach services oriented to increase knowledge on PYD and						
the inclusion of adolescents active participation in youth serving						
organization structures and delivery of services.						
3. NAP staff was interviewed and the results collected to assess				Х		
the adoption of eight (8) Positive Youth Development Model						
fundamentals as part of the development of SPM 07 Evaluation						
Plan.						
4. PYDM based EBPs PEP and AIM were selected to be				Х		
implemented in AEP Plan for Puerto Rico selected						
municipalities.						
5. PYDM based EBP PEP ("Crianza") was offered to			Х			
approximately 500 parents of 10-12 y/o in the AE selected						
municipalities.						
6. PYDM based EBPs ¡Cuídate! (youth), ¡Cuídalos! (parents)				Х		
and Photo Voice (community) were selected for PREP PR Plan.						
7.						
8.						
9.						
10.						

#### **b.** Current Activities

The PYDM approach continues in public middle schools and Ponce Girl's Juvenile Institution's projects. "Understanding Adolescence" and PYD workshops were offered to adults (education and health professionals) by SISA. The NAP continues promoting PYDM to organizations and entities working with youths in Naranjito through different activities including: individual and group interventions, workshops, presentations, academic tutorials support, meetings with community leaders and dissemination of written materials.

The development of SPM 7 Evaluation Plan continues. The results of the interviews to the PAN personnel in regards to their adoption of eight (8) PYDM principles were analyzed and an oral presentation was offered to NAP Board of Directors by TV Evaluator. A culturally adapted Youth Participation Questionnaire was developed, piloted (with YHPs), revised and administered to NAP youth participants to assess the level of their participation, skill development and social inclusion after their participation in NAP projects. The results and analysis for the evaluation report is in process. Evaluation results were the base for the annual SPM #7.

AE is offering the 2nd year of PREP program to new parents of 10-12 y/o through CBOs in selected communities. AIM training of facilitators was offered and pilots for cultural sensitivity and adaptation are in progress. PREP Coordinator was hired and contracts for implementation and evaluation partners are in progress.

# c. Plan for the Coming Year

The MCAH will continue PYD initiatives. For the first time in the PRDOH a Youth Advisory Group will be organized to have the active participation of youths in MCAH and other PRDOH programs directed to youths health and wellbeing. The SISA will schedule presentations and workshops on "Understanding Adolescence" and PYDM to MCAH staff and members of the Regional MCAH Boards in order to raise awareness of the importance and significance of PYDM in adolescent as part of the life course approach to health promotion through life journey and to promote the initiation of PYDM approach in regional initiatives. A train the trainer of "Understanding Adolescence" will be prepared (translated into Spanish and culturally adapted) for its multiplication as a tool to present PYD Action Guide as a follow up work. Steps will be taken to complete the PR culturally competent PYDM Action Guide for its multiplication with adults working in youth serving entities including MCAH. The Youth Action Guide will be revised, piloted and evaluated with the collaboration of youth programs and youth serving entities.

The Naranjito Adolescent Program will continue offering the varied activities addressing youth health needs through the PYDM and collaborating with MCAH in the revision, piloting and evaluation of PYDM Action Guides for PR and "Understanding Adolescence" workshops. The youth entities directory will be revised. The PAN will collaborate with TV evaluator to establish a protocol for the establishment of PYDM in entities in PR including the selection, training, implementation and evaluation of entities that decide to establish PYDM.

The Evaluation Plan regarding the adoption of the PYDM by selected organizations will be completed as well as the Evaluation Report of the work to asses PAN adoption of PYD and youths participation experiences and evaluation of PAN adoption of PYDM. This two will serve as the base to continue the assessment of new entities adopting PYDM in their work with adolescents and the Protocol for PYDM implementation.

Meanwhile, AE and PREP Programs will continue implementing EB PYD programs selected to reduce teen pregnancies and sexually transmitted diseases and to prepare adolescents in the transition to adult life.

# E. Health Status Indicators

#### **DEMOGRAPHY**

Puerto Rico has been a territory of the United States since the end of the Spanish-American War (1898) and became a Commonwealth in 1952.

In the 2000 Census, 1,520,995 children and adolescents aged 0-24 lived in PR. This figure represents 40% of the overall population of PR. Ten years later (2010), the size of this population group declined by 24%. The 2010 Census registered about 1,278,440 young population, representing 34% of all population of PR. This was a significant decrease in population size, the first time registered in PR. The major population decline occurred in the group of children under 5 years old (24%).

The natural population growth in PR continues to decrease as a consequence of declining natality rates over the last decade. Experts in the demography field point out that lower natality rates can be attributed to two major factors. One factor is migration from PR to US mainland mainly as a consequence of the economic recession. According to the Puerto Rico Statistics Institute the net migration for 2010 was approximately -28,000 people; about 0.8% of the population did not reside any longer in Puerto Rico. The 2010 Census reflected that Puerto Ricans living in the mainland concentrate in New York and Florida states.

The other factor relates to changes in reproductive behavior among childbearing age women. It has been observed that women are increasingly delaying maternity. This delay can be linked to changes in women's roles as more seek higher education and actively participate in wage labor. Additionally, couples are increasingly evaluating the cost of raising children due to prevailing socio-economic conditions in PR. A long-term decline in fecundity rates has been observed in PR. Data for 2010 suggest that the fecundity rate has fallen to 1.6 births per woman, less than the replacement level (2.0 births per women).

#### **ETHNICITY**

Spanish is the official language of the Commonwealth of Puerto Rico. The majority of the 0-24 year old population was Hispanic (99%) and spoke Spanish (96%) according to the 2010 Census.

The ethnicity that predominates is Puerto Rican, while the most significant foreign ethnic groups are Dominicans and Cubans. The Dominican population is the major foreign ethnic group in PR and one of the most disadvantaged groups. Two categories of Dominicans live in PR: legal and undocumented residents. Low income Dominicans who are legal residents but have lived in Puerto Rico for less than 5 years or married with an American citizen but have less than 3 years married are not eligible for the Government Insurance Plan. If they cannot afford a private medical plan, they have the same problem as the undocumented population: they either pay cash for health services, or, quite often, they do not seek care at all. Nevertheless, they are able to receive emergency care services.

#### GEOGRAPHY

The Census Bureau identifies two types of urban areas: "urbanized areas" of 50,000 or more people and "urban clusters" of at least 2,500 and less than 50,000 people. In PR there were 11 urbanized areas and 8 urban clusters for the 2010 Census. Of the urbanized areas, San Juan remains the largest, with a population of 2,148,346.

Puerto Rico's urban population declined from 3,590,994 people in 2000 to 3,493,256 in 2010, now accounting for 93.8 percent of the total population of 3,725,789 (down from 94.3 percent). The rural population increased between 2000 and 2010, both in numbers, from 217,616 to 232,533, and as a percentage of the total population, from 5.6 percent to 6.2 percent.

According to the PRCS we estimate the percent of children up to 19 years living in metropolitan, urban and rural areas using the distribution for all individuals of those ages in Puerto Rico for 2010. Based on this estimate, about 1.0 million infants, children and adolescents up to 19 years lived in metropolitan areas. This represents a slight reduction compared with the 2009 data. Otherwise, a reduction is estimated for the population aged 0-19 living in urban areas compared with 2009 data (943,576).

Poor families with children living in metropolitan and urban areas without access to coordinated services are more susceptible to utilize tertiary health services. However, the health needs of rural and urban populations, especially children, differ greatly. As research conducted by Title V Monitoring and Evaluation Unit shows, the health disparities between urban and rural areas are due largely to factors such as transportation barriers and limited pediatric services in rural areas. Insufficiency of pediatric services in rural areas is another barrier faced by families.

#### POVERTY LEVEL

Poverty is a significant social problem in PR. In 2010, almost half the population in PR was living in poverty (45%), three times higher than the percent in the USA (15%).

People and families are classified as being in poverty if their income is less than their poverty threshold. The PR Community Survey (PRCS) evaluated the poverty level for 3,685,731 of 3,967,288 individuals in Puerto Rico. Classification by gender indicates that poverty is significantly higher for women (47%) when compare with males (43%).

In 2010, 41% of all families and 58% of families with a female householder and no husband present had incomes below the poverty level. This panorama worsens when the families have children under 18 years. Fifty-one percent of all families and 68% of female-headed families were below the poverty level, ten percent higher than families without children. The family, as a social institution, is mainly responsible for the healthy development of children since their care rests upon parents and/or legal caretakers. Children's lives depend on the family's capability to satisfy their basic needs; little or no access to the necessary resources has adverse effects on the level and quality of life. The younger the population, the poorer they are. According to the PRCS about 56% of the population under 18 years old was living in poverty, while 42% of people between the ages 18 to 64 years and 40% of those 65 years and over were poorer.

HSI 01A, 01B, 02A, 02B: According to 2011 AAPC, the percent of LBW is expected to continue the upward trend compared with 2000's rates (12.8 and 10.8%, respectively). LBW in singleton birth for 2011 is estimated to be 11.6%. When we compare with 2000's rate (9.7%) it is expected to continue increasing by 19.6%.

However, very low birth weight (VLBW) is showing a decrease since 2000. For 2011 AAPC, the percent is expected to be 1.3%, a decrease of 7.1% when compare to 2000's rate (1.5%). On the other hand, for VLBW singleton the percent has remained the same since 2000 (1.2%). LBW and VLBW are related to preterm, an increasing problem and first cause of death for early preterm babies. PR has one of the highest preterm birth rates in the nation.

Efforts to improve these indicators are conducted by the MCAH Program. Through the HVP, it provides case management, care coordination, health education and counseling to pregnant women with complex medical and social risk factors associated with LBW and VLBW infants. The CHWs educate pregnant women on the signs and symptoms of preterm delivery, the importance of early prenatal care, nutrition and adequate weigh gain during pregnancy, preconception health, and oral health. A Prenatal Course that has been developed contains a session aimed at reducing prematurity. In addition, efforts were directed to the health providers of childbearing age women to enhance their knowledge of the impact of LBW and VLBW and the different approaches to decrease the incidence of these indicators.

The WIC Program also contributes toward reducing these rates by focusing on women with nutritional risk factors.

HSI 05A, 05B: Chlamydia trachomatis is the most widespread bacterial STD and the most frequently reported among the mandatory reportable diseases in U.S. In Puerto Rico, it is also the most commonly informed STD among teenagers. Due to its asymptomatic nature, most persons who become infected with Chlamydia may not receive timely adequate treatment resulting in poor health outcomes, such as Pelvic Inflammatory Disease (PID) and ectopic pregnancy in women and infertility in both males and females. Also, pregnant women with untreated Chlamydia infections may deliver prematurely and their infants are at risk of developing diseases which may cause blindness and serious respiratory problems (early infant pneumonia).

Statistics reported by the Puerto Rico STD Surveillance System revealed 5,655 new cases of Chlamydia in the Island in 2011 (4,545 females for a rate of 2.3/1,000). Of such cases, 1,624 were adolescents 15-19 years old: 1,432 females, for a rate of 10.0/1,000.

Monitoring data for this indicator in females 15-19 years old since 2006 showed a 67.1% increase in rates from 2006 (8.5/1,000) to 2007 (14.2/1,000), this increase may be a reflection of the introduction of urine screening tests campaign that year. There has been a decrease of 29.6% when comparing data for 2007 and 2011 (14.2/1,000 and 10.0/1,000, respectively).

On the other hand, 3,894 new cases were reported among the population 20-44 years old in 2011, of which 3,014 were females (4.4/1,000). For 2010, a total of 4,026 new cases were reported in the 20-44 age range, of which 3,161 (5.0/1,000) were females. There has been a reduction of 33.3% in the rates for female cases in this age range when comparing 2007 (6.6/1,000) and 2011 (4.4/1,000).

The progress observed in this indicator for females in both 15-19 and 20-44 year old groups may be the result of continuous educational and screening opportunities - undertaken mainly by the PRDOH STD/HIV/AIDS Prevention Program - aimed at increasing public awareness of the health hazards related to Chlamydia infection and how to avoid the disease. For example, the outreach strategy to provide urine tests in schools to identify Chlamydia infections among adolescents has been in place since 2006. Likewise, educational activities carry out by this Program are beneficial for health providers since they strengthen their responsibility to educate their clients, as well as, incorporating screening for Chlamydia and other STDs in their routine health evaluation. Consequently, positive cases can be identified early on permitting those affected receive adequate treatment and thus, reducing the infection's occurrence and its long term health outcomes.

To keep the downward trend in this indicator we will continue our efforts to create public awareness of this disease and its prevention. Hence, the MCAH Program will maintain its collaboration with the PRDOH STD/HIV/AIDS Prevention Program to ensure that MCAH staff - particularly HVN - is adequately trained on this matter. The HVN staff is responsible for providing individual education and orientation to HVP participants - largely composed of adolescents - and making referrals in those cases in need for screening and proper treatment. According to existing recommendations for Preventive Pediatric Health Care by the American Academy of Pediatrics adolescents aged 15-17 must be examined for Chlamydia; a recommendation included in the PRDOH Guidelines for Pediatric Preventive Services. Since 2008, tests for Chlamydia and Gonorrhea are part of the marriage license requirements in PR.

The Comprehensive Adolescent Health Program (SISA in spanish) within MCAH will target adolescents in each health region with educational materials aimed at helping reduce the likelihood of contracting this infection. Participants of the Youth Peer Health Promoters will also engage in this effort by disseminating educational materials among their school peers.

HSI 07A: The 2010 PRCS estimated that 932,597 residents were women between the ages of 10 and 50 years. Of these, 66% were white and 7% were black while the remaining women were reported as other races. The information under the race category reported in the last two Census in PR may well be misleading for two main reasons. First, the question does not include other racial categories used by Puerto Ricans. Second, there is a social stigma attached to being black among Puerto Ricans. Nevertheless, there is not a significant racial disparity in Puerto Rican society.

Total births in Puerto Rico have decreased by 31.4% since 2000 with 59,460 births to 40,794 in 2011(preliminary data). This significant decrease (p<0.05) is also observed when stratified according to mothers' age group. Vital Statistics (VS) for 2000 revealed that birth rates for teens were as follow: 1.8/1,000 for 10 to 14 years, 48.8/1,000 for 15 to 17 years and 107.1 for 18 to 19 years. However, a report stratified on mothers' age reveals that birth rates decreased 66.7% for 10 to 14 age group (0.64/1,000), 40.6% for 15 to 17 years of age (29/1,000) and 28.8% for teens 18 to 19 years of age (76.3/1,000).

In terms of birth rates in women 20 years and older the same pattern is observed. For 2000, birth rate for women 20 to 34 years of age was 101.8/1,000, whereas women of 35 to 50 years of age had a birth rate of 11.3/1,000. By 2011, a decrease of 28.9% was observed in birth rates for women of 20 to 34 years (72.4/1,000) and 31.9% for women of 35 to 50 years (7.7/1,000).

Efforts to reduce teen pregnancies are made by the MCAH Program through CAHP and other special projects that address adolescent health related issues. The Positive Youth Development (PYD) Model is SISA's main strategy to promote youth health and prevent high risk behaviors such as premature and unprotected sex which can lead to teen pregnancy. (Refer to PM 8 for more information).

On April 2012, the Puerto Rico Department of Education (PRDOE) released a Memorandum (Carta Circular No. 15-2011-2012) to all personnel, which states its public policy concerning sex education in public schools. Through the Model for Comprehensive Sex Health Education (MCSHE), the School Health Program will be primarily responsible for sex education related activities. The MCSHE places emphasis on the promotion of sexual abstinence for the prevention of unwanted pregnancies and sexually transmitted diseases. Given that 58.6% of adolescents between 12 and 18 years old are enrolled in PRDOE (between 6th and 12th grade) it is important for MCAH to support this policy as one of the initiative to decrease teen pregnancies.

HSI 08A: The 2011 Vital Statistic (VS) data for deaths is currently unavailable. Preliminary VS 2010 data shows that the infant mortality rate was 8.2/1,000 live births which is higher than the rate reported in 2009 (7.9/1,000 live births) but lower than the reported in 2008 (8.8/1,000 live births). This represents a decrease of 6.8% when comparing between 2010 and 2008.

As mentioned earlier, the cause of death in the VS data for deaths is now determined by the National Center for Health Statistics (NCHS). Therefore, VS data for 2010 shows that the leading causes of infant mortality were: (1) congenital anomalies, (2) sepsis, and (3) respiratory distress syndrome.

The Fetal and Infant Mortality Review (FIMR) Case Committee has been reviewing infant mortality cases since 2009. During the period 2009-2011, the FIMR Committee held 19 meetings and reviewed 38 cases from the Mayaguez and Ponce Regions. Of the cases reviewed, 60% were of babies born prematurely; 61 % weighed less than 1KG and; 91% of deaths occurred in infants less than 28 days of age. Among the diagnoses included in the death certificate of the cases reviewed were: prematurity, intracranial hemorrhage, respiratory distress syndrome, necrotizing enterocolitis, sepsis, pneumothorax, and aspiration pneumonia.

The preliminary 2010 VS data indicates that the death rate in the pediatric population of 1-14 years was 10.8/100,000. This rate was lower than the reported in 2009 and 2008 (17.2 and 12.7 respectively) and also represents a decrease of 18% when comparing between 2010 and 2008. The leading causes of death were: (1) neoplasms, (2) unintentional injuries, and (3) homicides.

In the subgroup of children 1-4 years of age, the death rate was 13.4/100,000. This rate was the lowest in the last three years (21.2 for 2008 and 19.1 for 2009). Among them, the leading causes of death were: (1) unintentional injuries, (2) septicemia and (3) homicides. In the past years unintentional injuries, congenital anomalies and septicemia have been the leading causes of death in this age group.

In the subgroup of children 5-9 years of age, the death rate was 9.3 which is lower than the rate reported in 2009 (14.6/100,000) but higher than the reported on 2008 (8.2/100,000). This represents an increase of 12% when comparing between 2010 and 2008. The leading causes of death were: (1) unintentional injuries, (2) neoplasms and (3) lower respiratory diseases. In this age group, unintentional injuries and neoplasms have been the major causes of death in the last five years.

In the 10-14 age group, the death rate was 10.5/100,000; being the lowest in the last three years (18.3 for 2008 and 11.1 for 2009). The leading causes of death were: (1) neoplasms, (2) homicides and (3) unintentional injuries. Yet, unintentional injuries and neoplasms have been the leading causes of death in this age group in the last years.

For the adolescent group aged 15-19, the death rate was 61.2/100,000 in 2010. In 2009 the death rate was 68.6 and 67.4 in 2008. The leading causes of death were: (1) homicides, (2) unintentional injuries, and (3) suicides. Among this age group, homicides and unintentional injuries have been the major causes of death in the last five years.

The death rate for the young adult population aged 20-24 was 149.4/100,000. This rate was lower than the rate reported in 2009 (153.3/100,000) but higher than the reported in 2008 (125.0/100,000). This represents an increase of 20% when comparing between 2010 and 2008. The most frequent causes of death in this age group were homicides and unintentional injuries, followed by suicides.

In spite of the progressive decrease in the infant and pediatric mortality, our rates remain higher than the national rates. Unintentional injuries are one of the most frequent leading causes of death in all age groups. To continue the preventive work around unintentional injuries in the pediatric population, MCAH will convene a multiplicity of agencies to establish an Unintentional Injury Prevention Committee. We will also continue to endorse the efforts led by the EMSC Project to establish an emergency response system that is well equipped and qualified to manage pediatric emergencies in the event of a large scale disaster. Furthermore, we will set up communication with the PRDOH Webmaster in order to start posting injury prevention messages in the PRDOH webpage.

### F. Other Program Activities

/2013/ Direct Services

\*The GIP doesn't provide contraception methods neither the Rhogam vaccine recommended at the 28 weeks of gestation to non-sensitized Rh negative pregnant women. The MCAH Program provides these services to the eligible population. During FY 2010-2011, a total of 10,801 WBCA (unduplicated) received contraceptives, 31,043 methods were distributed. Also 1,978 Rhogam vaccines were supplied to participants.

\*During CY 2011, PROFAMILIA provided clinical services to 4.064 WRA and 54,621 for

contraceptives methods.

\*During FY 2010-2010, the Pediatric Centers provided health services to 8,045 CSHCN.

### **Enabling Services**

\*The PRDOH is required by law to have a toll-free line to provide orientation to the public regarding health care and other services and how to access them. ASES as well as the health insurance companies contracted are required to operate a toll-free line. Other organizations that provide services to the MCAH population have toll-free lines available to respond their needs. Some of these toll-free lines are:

PRDOH: 1-800-981-5721 ASES: 1-800-981-2737 Humana: 1-800-790-7305 Triple-S: 1-800-981-1352 APS: 1-800-695-5416

"Linea PAs" from ASSMCA: 1-800-981-0023

Patients Advocate Office (Ombudsman): 1-800-981-0031

Poison Control Center: 1-800-222-1222 APNI: 1-800-981-8492; 1-800-981-8393

United Way: 211

PR LACTA: 787-723-8347

\*The MCAH staff reported 758 calls received for orientation on diverse issues and data request. The HVN performed 8,825 and the CHW 6,627 telephone interventions.

\*During FY 2010-2011, ASSMCA received 94,674 calls through their "Linea Pas", of which 219,581 were related to suicidal ideas, attempts and threats; among other psychological related conditions. Also APNI received 732 calls for information.

\*The social worker funded by Title V who is offering services at the Sexual Assault Victim Center (CAVV, Spanish acronym) reported receiving 86 calls for orientation and other services during this period.

### Population Based

\*MCAH regional staff offered 6,740 educational activities on MCAH topics to 111,533 persons. Our regional staff took part in 255 health fairs and multiphase clinics reaching 13,584 participants.

# Infrastructure Building

\*During August 2011, a two-day asthma conference was organized to provide state of the art information on asthma management and to educate and empower patients and caregivers in controlling asthma. Topics presented included trends in the diagnosis and management of adult asthma, asthma and the environment, oral health, nutrition, psychological aspects of asthma and the Asthma Action Plan as an effective tool to manage asthma. A total of 283 health professionals and 23 asthma patients and caregivers were impacted.

\*The PR ECCS Project continues collaborating with the municipal administrations with the Early Childhood Information Centers (CINTs) addressing health and development of the early childhood population and their families.

\*During 2011-2012 MCAH Program began to incorporate the Life Course framework to address the health of MCAH population and concomitantly health policy and programming. PRSSDI provides support in the development of evaluation instruments to document the integration of life course principles into the MCAH policy development, strategic and operational plans, including the program evaluation (see Appendix 7 - PR MCH LC Process for a summary of the implementation of the Life Course Perspective into MCAH Program). //2013//

An attachment is included in this section. IVF - Other Program Activities

## G. Technical Assistance

States and jurisdictions were in the process of elaborating the comprehensive and mandated five years needs assessment for the 2010-2015 period required by the Title V proposal. As a result of new administrative procedures at the PRDOH, the yearly rehiring process of personnel under contract at the MCH Division was delayed, provoking the delay also of the needs assessment process. Nevertheless, personnel resumed functions readily to make up for the time delay. No technical assistance was requested at the time for this reason. However, we will request a technical assistance to help us improve the Strategic Plan related to this Needs Assessment.

The rate of premature births in PR is the highest in the nation. With the intention of identifying risk factors in Puerto Rico that may be contributing to this elevated prematurity rate and to develop a strategy directed to improve this health indicator in the Island, in 2007 the MCH Division became a member of the Puerto Rico Prematurity Taskforce (PRPT). The Taskforce analyzed Vital Statistics data from 1990 to 2004 to detect risk factors that could explain this phenomenon, but the results did not succeed in pointing at any cause usually mentioned as contributory (e.g.: maternal age, education and lifestyle, prenatal care).

Premature and LBW births are the leading causes for infant mortality in Puerto Rico. Therefore, determining preventable or modifiable risk factors for premature births is one of our greatest main concerns. For that reason, the MCH Division requests a technical assistance to help us perform an in-depth analysis of this health situation and identify those risk factors that may be reduced or eliminated and improve our premature births rates.

The Title V Application and Annual Report Guidance requires that States report progress in reaching the established annual performance indicator for each of the 18 National Performance Measures, all the State Negotiated PMs (8 in PR), 15 HSCIs and other health status and sociodemographic indicators and 6 outcome measures. Those jurisdictions with limited resources view this as a great challenge aside from the fact that at the same time are left out of national surveys that provide the data for some of the PMs.

On the other hand, the Hospital Discharge Survey is one of the data sources used to report the progress towards achieving annual objectives for Health Status Indicators (HSI) and Health System Capacity Indicators (HSCI). This survey provides data for HSI 4A: the rate of non fatal injuries in children of 14 years of age and older; HSCI 01: the rate of hospitalizations among children 0-4 years due to bronchial asthma; and HSCI 9A: the ability of the MCH program to obtain data for program planning or policy purpose in a timely manner. The Hospital Discharge Survey is carried out annually by the National Center for Health Statistics, and collects medical and demographic information from a sample of discharge records selected from a sample of hospitals. The information collected serve as a basis for calculating statistics on hospital utilization related with preventable conditions such as those described above.

Territories and jurisdictions with limited resources that do not participate in these national surveys meet a great challenge when reporting data on these indicators. To cope with this, the Puerto Rico Department of Health is requesting a technical assistance in order to obtain quality and timely data needed to report on these HIS and HSCI. It will allow us to initiate the planning phase for the PR Hospital Discharge Survey Project. We will adapt and tailor the survey to our local needs and language specifications. The assistance of key personnel from the National Center for Health Statistics will increase our ability to have data to monitor our progress toward improving the health and wellbeing of our target population. For these purposes, we intend to submit a formal request for this technical assistance and begin our planning phase during this current year.

/2012/ In view that Hospital Discharge Survey (HDS) is not available for PR, we considered to proceed to customize the survey that can provide data that we need to achieved the TV objectives. In terms of that, we would request a technical assistance to assess and validate our product.//2012//

/2013/ The Puerto Rico CSHCN Program has experienced significant changes during the past years with impact on accessibility to services for children and families. The Program is requesting TA to develop and implement a plan for the efficient utilization of Title V funds and the identification of State funds in order to assure accessibility to needed services for this population. This TA must include meetings between MCHB representatives with the Secretary of Health and the Legislature, among others, to develop a concerted effort at the State level with short and long term objectives to assure sustainability.//2013//

# V. Budget Narrative

Budget and expenditure data from Forms 3, 4, and 5 are provided for the application year, interim year, and reporting year to assist the reviewer in analysis of the budget and expenditure narrative. For complete financial data, refer to all the financial data reported on Forms 2-5, especially when reviewing the federal allocation on Form 2 for the 30%/30%/10% breakdown for the budgets planned for primary and preventive care for children, children with special health care needs, and administrative costs.

Form 3, State MCH Funding Profile

	FY 2	2011	FY 2	2012	FY 2013		
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended	
1. Federal	16050025	16050025	16050025		15846019		
Allocation							
(Line1, Form 2)							
2. Unobligated	0	0	735416		1122912		
Balance (Line2, Form 2)							
3. State Funds (Line3, Form 2)	12037519	12037519	12037519		12726698		
4. Local MCH	0	0	0		0		
Funds							
(Line4, Form 2)							
5. Other Funds	0	0	0		0		
(Line5, Form 2)							
6. Program	234092	234092	213464		190080		
Income							
(Line6, Form 2)							
7. Subtotal	28321636	28321636	29036424		29885709		
8. Other Federal	6491008	6491008	8091079		9071410		
Funds							
(Line10, Form 2)							
9. Total	34812644	34812644	37127503		38957119		
(Line11, Form 2)							

Form 4, Budget Details By Types of Individuals Served (I) and Sources of Other Federal Funds

	FY 2011		FY 2	2012	FY 2013	
I. Federal-State MCH Block Grant Partnership	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
a. Pregnant Women	4007495	3770947	4127582		4763651	
b. Infants < 1 year old	4007495	3770947	4127583		4763651	
c. Children 1 to 22 years old	9350821	8471323	9588128		9386903	
d. Children with	9350823	10703417	9588129		9386903	

Special									
<b>Healthcare Needs</b>									
e. Others	0	0	0		0				
f. Administration	1605002	1605002	1605002		1584601				
g. SUBTOTAL	28321636	28321636	29036424		29885709				
II. Other Federal Funds (under the control of the person responsible for administration of									
the Title V program	).								
a. SPRANS	0		0		0				
b. SSDI	93713		97260		65357				
c. CISS	140000		132000		150000				
d. Abstinence	0		1965679		1532289				
Education									
e. Healthy Start	500000		500000		500000				
f. EMSC	0		0		0				
g. WIC	0		0		0				
h. AIDS	0		0		0				
i. CDC	640000		594984		568000				
j. Education	4817296		4651156		4383906				
k. Home Visiting	0		0		1000000				
k. Other		·		•					
PREP	0		0		736858				
UNHS	299999		150000		135000				

Form 5, State Title V Program Budget and Expenditures by Types of Services (II)

	FY 2	2011	FY 2	2012	FY 2013	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
I. Direct Health	16347942	16667346	16550763		17244054	
Care Services						
II. Enabling	4517467	4177541	3774735		4781714	
Services						
III. Population-	2213298	2289714	2322913		2331085	
<b>Based Services</b>						
IV. Infrastructure	5242929	5187035	6388013		5528856	
Building Services						
V. Federal-State	28321636	28321636	29036424		29885709	
Title V Block						
<b>Grant Partnership</b>						
Total						

# A. Expenditures

Completion of Budget Forms

Please refer to budget columns of Forms 2, 3, 4 and 5 of FY 2008-2009. Estimates were used in order to provide budget and expenditure details. Breakdown of expenditures by type of services is a very difficult task when we try to assess the performance of a public health professional. This task is quite easy at the first level of the pyramid related to direct services. At this level, we know who serves the different groups of the MCH population and the amount of time dedicated to each of the subgroups, allowing us to determine the expenditures by type of individuals served. But trying to estimate the amount of time dedicated to each of the subgroups comprising the MCH population, as well as the time dedicated to perform enabling, population-based or infrastructure building services, is not an easy task. For this reason, estimates had to be made and this may lead to discrepancies between the budgeted and the expended figures by levels of the pyramid. The expended columns reflect the real expenditures registered according to the pyramid levels.

Adjustments have been made progressively to the budgeted funds to reflect the behavior of the expenses in the accounts of previous years.

# /2012/ Completion of Budget Forms

Please refer to budget columns of Forms 2, 3, 4 and 5 of FY 2009-2010. Estimates were used in order to provide budget and expenditure details. A detailed breakdown of expenditures by type of services is a very difficult task when we try to assess the performance of a public health professional. This task is quite easy at the top level of the pyramid related to direct services. At this level, we know which professional serves the different groups of the MCH population and the amount of time dedicated to each of the subgroups, allowing us to determine the expenditures by type of individuals served. But trying to estimate the amount of time dedicated to each of the subgroups comprising the MCH population, as well as the time dedicated to perform enabling, population-based or infrastructure building services, is not an easy task. For this reason, estimates had to be made and this may lead to discrepancies between the budgeted and the expended figures by levels of the pyramid. The expended columns reflect the real expenditures registered according to the pyramid levels. Adjustments have been made progressively to the budgeted funds to reflect the behavior of the expenses in the accounts of previous years.//2012//

### /2013/ Completion of Budget Forms

Please refer to budget columns of Forms 2, 3, 4 and 5 of FY 2010-2011. Estimates were used in order to provide budget and expenditure details. A detailed breakdown of expenditures by type of services is a very difficult task when we try to assess the performance of a public health professional. This task is quite easy at the top level of the pyramid related to direct services. At this level, we know which professional serves the different groups of the MCH population and the amount of time dedicated to each of the subgroups, allowing us to determine the expenditures by type of individuals served. But trying to estimate the amount of time dedicated to each of the subgroups comprising the MCH population, as well as the time dedicated to perform enabling, population-based or infrastructure building services, is not an easy task. For this reason, estimates had to be made and this may lead to discrepancies between the budgeted and the expended figures by levels of the pyramid. The expended columns reflect the real expenditures registered according to the pyramid levels. Adjustments have been made progressively to the budgeted funds to reflect the behavior of the expenses in the accounts of previous years. For this year funds were required in addition to the 35% usually budgeted funds to cover expenditures of the CSHCNP mainly in the Direct Services pyramid level due to reduction in program income and unavailability of state funds.//2013//

# **B.** Budget

/2013/ Program allocations have taken into account the 30-30-30-10 requirements established by Title V. Efforts are made to match funds according to the identified needs through the four levels of the MCH pyramid, as well as the three groups of individuals that comprise the target population.

Puerto Rico assures that the MCH funds are used for the purposes outlined in Title V, Section 505 of the Social Security Act. Traditionally, a fair method has been used to allocate Title V funds among individuals and geographic areas having unmet needs. The fair allocation of funds is guided by an Integrated Index of Maternal and Infant Health Status (IIMIHS) developed by the MCH Division to assess the health needs of the target population by municipality (Table II-1). One of the benefits of using this Index is that the information necessary to evaluate each of its variables is available on an ongoing basis through analysis of birth and death files. The CSHCN Division allocates Title V funds guided by the needs assessment's findings and the national and state performance measures.

A total of 35% of Title V Block Grant Funds is allocated for the CSHCN program. Sixty-three percent (63%) of funds are allocated in the Direct Service Pyramid Level. This includes salaries and benefits of the staff, specialists and sub specialists professionals' service contracts, special nutritional supplements, assistance devices and Central level MCH Staff. The other five percent (5%) is used to cover the administrative costs for the central level and the seven Pediatric Centers.

As of June 2012, the MCH Division has 59 Home Visiting Nurses, 41 Community Health Workers, 5 Perinatal Nurses and 2 Health Educators across the Island. At the regional level we have eight teams. Most teams are comprised of the regional MCH director, coordinator of maternal and infant health services, coordinator of preventive services for children, coordinator of adolescent health services, and administrative support staff. At the central level we have 18 regular positions and 9 contracts. Contract positions paid with Title V funds include a Biostatistician, two Epidemiologists, two Evaluators, one Anthropologist, one Physician, one Social Worker and one Fiscal Affairs Coordinator.

At the Central level, the CSHCN Section has a total of 11 positions: 7 regular positions and 4 contracts. Contract positions include an Evaluator, an Epidemiologist and a Family Advocate and an Accountant Assistant. At the Regional Level, the CSHCN Section has a total of 205 positions: of these 162 are paid by Title V funds (132 regular positions and 30 contracts). In addition, 42 employees are paid with State funds.

#### Allocations by Levels of the Pyramid:

Direct Services: Previously, MCH funds were assigned to purchase contraceptive methods to support the family planning services rendered through the Health Care Reform for women holding the GIP. This service provided by MCH has been affected by the reduction of Title V funds, the increase in costs of contraceptive methods, and the legislated salary raise for nurses and the PRDOH Personnel Reclassification Plan implemented in July 2007. Although other family planning services, such as the sterilization of males and females are included in the GIP, contraceptive methods are not included in the benefit package.

The needs of CSHCN identified through the needs assessment support our efforts to make specialized services available through the Pediatric Centers. The Metropolitan Area Pediatric Center, administratively under the Pediatric University Hospital for the past eleven years, remains a supra tertiary referral center and provides services not available in the regions for children and families referred by the other six Pediatric Centers. The Metropolitan Area Center offers a wide variety of sub-specialized services to our population. Prostheses and orthoses are partially funded by Title V. Families contribute a deductible according to payment capacity determined by Medicaid.

Enabling Services: A significant amount of Title V funds from this level is obligated to support salaries, local travel and uniforms expenses for the 59 Home Visiting Nurses and 5 perinatal nurses. The HVNs are specially trained public health nurses who provide health education and coordinate services through referrals to the appropriate private and public entities in their communities. Also, part of these funds is set aside to support a community based organization that promotes adolescent health.

Eight (8) registered nurses and one (1) social worker provide care coordination services to CSHCN at the Pediatric Centers. Four (4) of these are paid with Title V funds and are included in this level; the other five (5) are paid with state funds.

Population-Based Services: Title V funds are used to maintain the NTD prevention campaign, folic acid consumption campaign, injury prevention, and the salaries and local

travel expenses of the health educators. These funds are also used to purchase educational materials according to the performance measures and incentives that promote the toll-free line and convey a wide array of health promotion messages. The salaries for the staff of the Comprehensive Adolescent Health Program (CAHP), including a physician and the social workers are assigned to this pyramid level. The 41 Community Health Workers in the eight regions as well as their local travel expenses are allocated at this level. The Community Health Workers have the responsibility to identify pregnant women and children outside the health care system and facilitate their enrollment in the GIP, as well as providing educational activities at the community level.

Infrastructure Building Services: To sustain the infrastructure of MCH/CSHCN programs, funds are used for the salaries of central and regional administrative staff. This area developed in the MCH Division is comprised by a team of skilled public health professionals including a Biostatistician, Epidemiologists, and Evaluators, among others. Funds are also invested for the needs assessment and other core functions, equipment, professional development, the purchase of computers, e-mail and informatics system maintenance, support for applied research and surveillance. All travel expenses required to attend meetings, conferences and trainings in the mainland, and other related activities are paid with these funds.

State dollars used to provide services to the MCH population surpasses many times the requirements for the match. State funds appropriations are used for the GIP and the implementation of a broad array of programs and services that contribute to improve the health and well being of the MCH population. Table V-1 presents a list of several programs supported by State dollars.

In addition to MCH dollars and the State funds listed in Table V-1, there are other federal sources of funds that contribute to the achievement of the MCH outcomes. These are included in Form #2.

Budget documentation: The Fiscal Affairs Office of the PR Department of Health and the Office of Federal Affairs maintain budget documentation for Title V funding and expenditures consistent with Section 505(a)(1).

Allocations for FY 2012-2013: The estimated funds to run the MCH/CSHCN programs during FY 2012-2013 are as follows:

Federal: \$15,846,019.00 Unobligated: \$1,122,912.00

(FY 2011-2012)

State Matching: \$12,726,698.00 Program Income \$190,080.00

Total: \$29,885,709.00

In case of an estimated unobligated balance, it will allows us to continue running both MCH/CSHCN programs during the first trimester of FY 2012-2013, since the funds requested are not available until late November or early December of the fiscal year.

# Allocation by MCH Population Groups:

A) \$4,753,806 (30%): for the provision of services to pregnant women, mothers and infants.

B) \$4,753,806 (30%): for the provision of preventive services for children.

C) \$4,753,806 (30%): for the provision of services to CSHCN.

D) \$1,584,601 (10%): From this amount, 5% is for program administration of Components A and B; and 5% for administration of the CSHCN program.

Administration: Up to 10% of the federal allocation is used to support salaries and benefits

of administrative staff, internal audits, newspaper advertisements, office supplies, document reproduction, mailing, AMCHP annual membership and others. The CSHCN Program covers part of its administrative costs from the 35% allocated from the MCH Block Grant.

### Other Requirements

Maintenance of Effort: Puerto Rico is in compliance with the maintenance of effort requirements as described in Section 505(a)(4). In fact, PR exceeded efforts of the last program year. As of December 2011, ASES reported that 1,359,417 individuals of all ages and both sexes were covered by the GIP in Puerto Rico. Among these, 359,612 were women 15-49 years of age, 26,465 were infants <1 years of age, and 419,037 were children 1-19 years old, including CSHCN.

During the FY 2011-2012, of all individuals holding the GIP, the MCH population represented 61.9% the annual cost per person was \$1,429.68 (\$119.14 per month). Table V-2 summarizes the funding sources provided by the State to pay for the health services of the population holding the GIP.

Considering that 61.9% (841,114) of the beneficiaries of the GIP represent the MCH population, it is estimated that PR invested over \$1,202,523,863 in state and local funds to pay for the MCH services. We assume that 33%, or \$396,832,875, were invested in preventive and primary services for the MCH population. In addition, about \$377,485,000 of Medicaid and \$100,150,722 of SCHIP were also used for this segment of the population. Several earmarked state funds allocated for special services and programs were also identified. These include \$180,000.00 for Hereditary Diseases Program, \$90,000.00 for the EMSC Program, and \$5,036,731 to support 73 children and adolescents with Catastrophic Illnesses, totaling \$5,306,731. Definitely, the Commonwealth of Puerto Rico surpasses the matching requirements of Title V (Table V-1).//2013//

An attachment is included in this section. VB - Budget

# **VI. Reporting Forms-General Information**

Please refer to Forms 2-21, completed by the state as part of its online application.

# VII. Performance and Outcome Measure Detail Sheets

For the National Performance Measures, detail sheets are provided as a part of the Guidance. States create one detail sheet for each state performance measure; to view these detail sheets please refer to Form 16 in the Forms section of the online application.

# VIII. Glossary

A standard glossary is provided as a part of the Guidance; if the state has also provided a state-specific glossary, it will appear as an attachment to this section.

# IX. Technical Note

Please refer to Section IX of the Guidance.

# X. Appendices and State Supporting documents

# A. Needs Assessment

Please refer to Section II attachments, if provided.

# **B. All Reporting Forms**

Please refer to Forms 2-21 completed as part of the online application.

# C. Organizational Charts and All Other State Supporting Documents

Please refer to Section III, C "Organizational Structure".

# D. Annual Report Data

This requirement is fulfilled by the completion of the online narrative and forms; please refer to those sections.